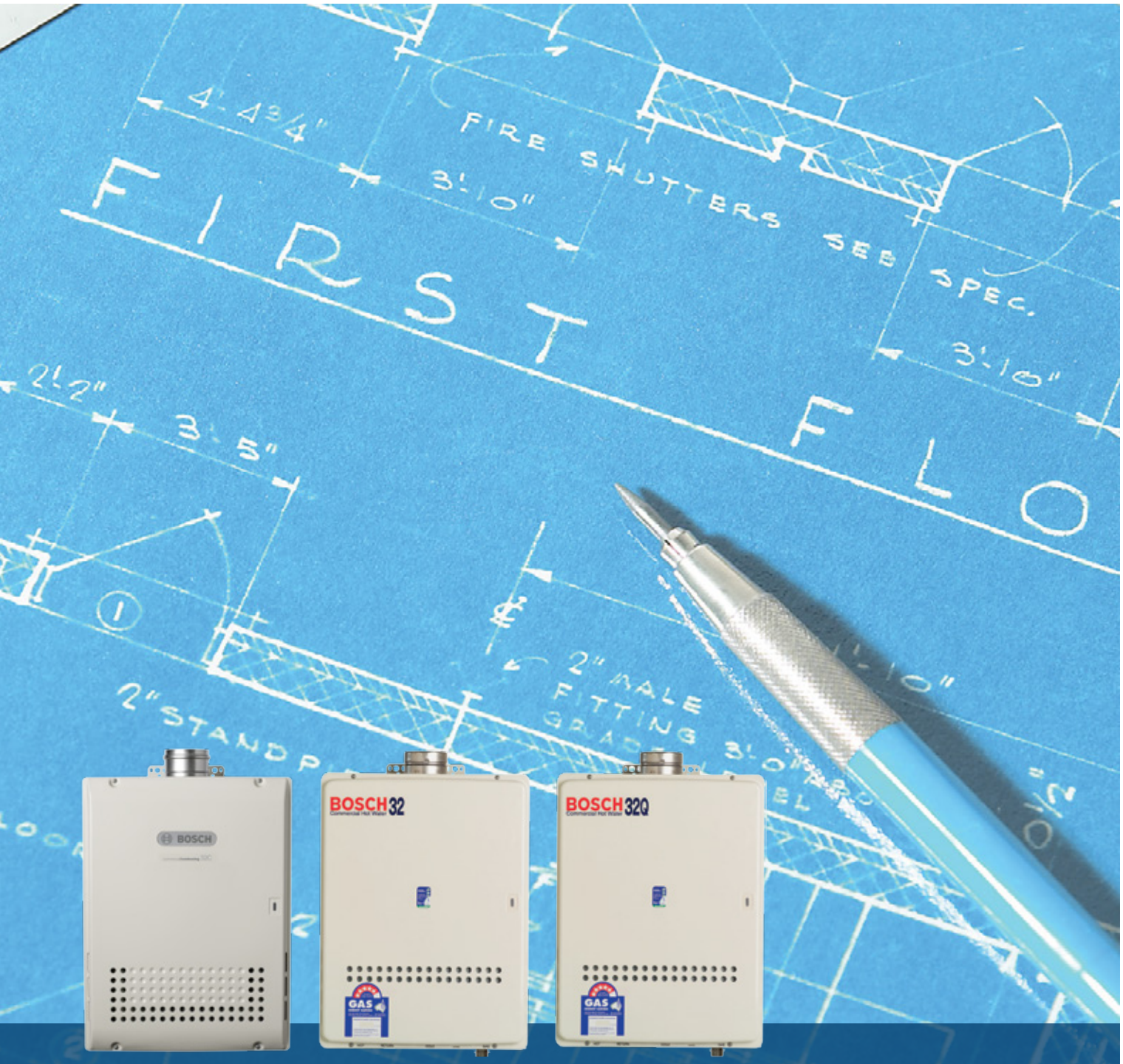


Technical & Specification Information

Bosch 32 Series Water Heaters

Bosch Commercial Series Condensing & Non-Condensing Continuous Flow Water Heaters

BOSCH

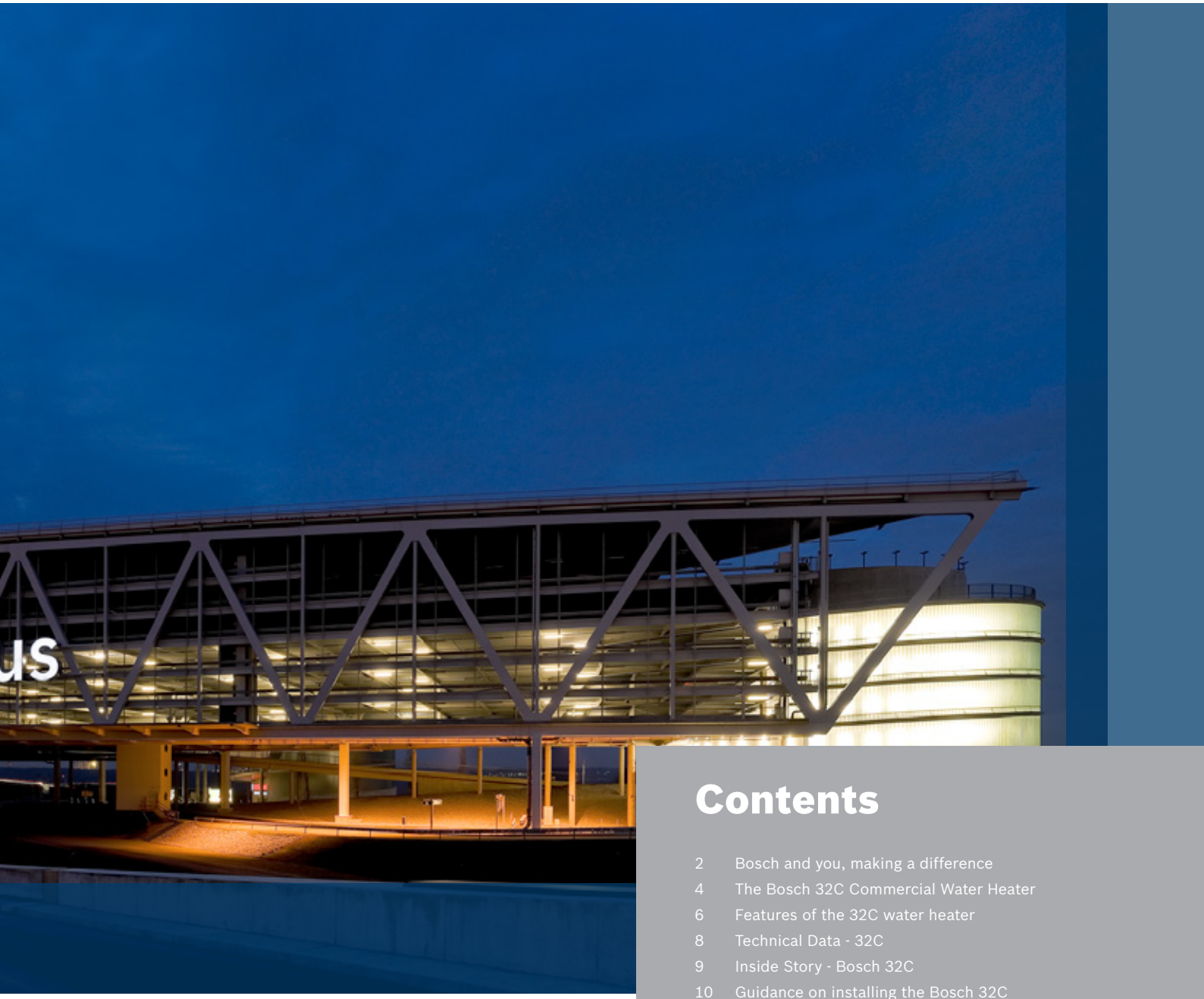
Hot Water & Heating

Bosch and you, making a difference

As part of the Bosch Group, Bosch Thermotechnology products are designed and manufactured to provide customers with the highest levels of quality and reliability which are synonymous with the Bosch name throughout the world.

Bosch Thermotechnology has the resources and support capability to offer you the value-added solutions you deserve. Bosch Thermotechnology has established a nationwide network of Service Engineers and trained Field Sales Managers supported by an experienced technical team which is able to provide support and advice from system layout through to installation.

Bosch Thermotechnology is dedicated to providing high performance, energy efficient hot water systems for a wide range of installations, including large domestic properties and commercial applications such as offices, schools, sports centre's and hotels.



The Bosch Thermotechnology Division is a leading global supplier of innovative and energy efficient Hot water, Heating and VAC solutions for commercial and industrial applications. Our products are designed and manufactured to the highest quality standards. Ongoing investment allows us to bring new technologies to market, as well enhance existing products.

In this respect, our customers benefit from Bosch solutions that are both highly efficient and reliable.

Mark Blacker
General Manager
Bosch Thermotechnology Division,
Australia, New Zealand & Oceania

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The **Bosch 32C** Commercial continuous flow water heater

Global responsibility for nature and the environment

Bosch Thermotechnology is committed to environmental protection. Product development is being prioritised in the interests of peoples well being, the economical use of resources and environmental sustainability.

In just a few short years, Australia's domestic heating and hot water industry has changed dramatically.

Words and expressions such as "renewable energy", "sustainable technology" and "carbon footprint" have become a part of everyday conversation and have been fuelled by extreme weather and stark television images.

Bosch Thermotechnology, while not continuing to satisfy the daily demands for heating and hot water comfort, has taken a lead in developing solutions which reduce the impact on the environment by reducing CO2 emissions – not only for today but well into the future.

With this in mind Bosch is proud to offer a high efficiency, high output gas-fired condensing continuous flow water heater for use with renewable energy sources or traditional fuels.

With an output of up to 57.5kW, Bosch 32 Series water heaters are ideal for use in high end residential, and both small and large commercial applications. It offers high energy-efficient condensing operation and up to 6 appliances can be cascaded in parallel offering a combined flow rate of up to 192 L/min.

The Bosch water heater at a glance

	Bosch 32C
Part No NG	BC3200RANG
Part No LPG	BC3200RALP
Output (kW) Max	57.5 kW
Input (mj) Max	217
Input (mj) Min	11
Flow rate at 50'C	16L/min
Flow rate at 25'C	32L/min
Install Application	Internal or External
Available Gas Types	Natural & LP Gas
Star Rating	6.0
Efficiency	94%

The Bosch 32C water Heaters features and benefits

Features	Benefits
Continuous flow hot water heater	On demand and sustained delivery
Condensing technology	High efficiency
Natural gas and LPG models	Fuel flexibility
Up to 3 temperatures controllers	Remote temperature control, service and maintenance assistance
Water temperature adjustment connector	Ability to adjust to multiple temperature settings without controller
Direct integration with solar heating	Adaptable to ecologically sustainable design requirements
Accessory to control manifold of up to 6 appliances	Maximises output up to 192 l/min at a 25 deg. temperature rise
Internal/External installation	Installation flexibility

The features of the 32C commercial water heater

Energy saving condensing design

The use of a condensing appliance contributes to achieving higher efficiency by incorporating a secondary heat exchanger. Heat within the flue gases is used to preheat the inlet water, and so recaptures energy that would otherwise be lost.

Applications

The Bosch 32C water heater has been optimised for use in domestic and commercial applications where there are high demands for domestic hot water (DHW).

At 57.5kW heating output, the Bosch 32C water heater offers the following performance:

- Up to 16 litres per minute with 50ºC rise
- Up to 32 litres per minute with 25ºC rise

The Bosch 32C water heater can be used with Natural Gas (NG) or Liquid Petroleum Gas (LPG) and can be installed in single appliances or multiples of up to 6 appliances. Extended flue lengths of up to 13m are also possible, helping to provide even greater design flexibility.

Large Domestic

A commercial condensing water heater is ideal for larger applications where:

- There is increased demand for domestic hot water (DHW) – e.g. Multiple fixtures such as sinks and showers
- Pre-heated water supply is to be used – e.g. by solar thermal

Typical examples include larger homes and small hotels.

Light commercial/non-domestic

Ideal for light commercial or non-domestic applications with:

- High demands for DHW – e.g. multiple fixtures such as sinks and showers
- Where demands for DHW are consistent throughout the day

Commercial

Suitable for large commercial applications where there is:

- Consistent high demands for DHW – e.g. laundries, hospitals
- Very high cyclic demands for DHW – e.g. hotels, schools

Bosch 32C's ability to use water pre-heated by renewable heat sources supports planning and investment requirements.

Such applications can take full advantage of the cascade controls that are part of the Bosch 32C offering. These controls provide the ability to deliver up to 192 litres per minute of hot water on demand at a 25°C rise.

Certain commercial applications may also take advantage of the ability to provide a hot water temperature of up to 85°C for sterilisation processes and secondary circulation.

Key benefits to the end user

Key benefits to the use

High volumes of hot water

- Multiple showers, sinks and baths used concurrently.

Energy savings

- Condensing technology for greater energy efficiency
- 6 Star energy efficiency rating - One of the most efficient commercial appliances on the market at 94% efficiency rating
- Compact size and modular design makes for easy retrofit installation

Low environmental impact

- Condensing design allows for a lower environmental impact
- Solar compatible system suitable for use with pre-heated water from renewables
- Compatible with hot water secondary circulation to reduce water wastage

Key benefits for installers

- Flexible design options
- Compact design
- NG and LPG versions available
- Horizontal or vertical flue options
- Frost protection

Ease of installation and maintenance

- Error codes functionality with optional controller
- Wall mounted and floor standing options
- Easy access for maintenance
- Compact design
- Internal and external installation
- Is available in 37°C to 85°C, 37°C to 50°C locked options
- Commercial grade heat exchanger

Cascading

Linking up to 6 water heaters together in parallel allows a maximum water flow of up to 192 litres per minute with a 25ºC rise.

Bosch's intelligent cascading software will automatically rotate the lead appliance after each 8 hours of operation, distributing the workload equally across the water heaters in the cascade, increasing the longevity of the appliances.

Secondary circulation

The Bosch 32C has a durable heat exchanger that allows it to withstand the frequent low-fire rates of a secondary circulation system.

To reduce water wastage, a secondary circulation system will circulate hot water through the pipe work of the property to ensure hot water is immediately available when a tap is opened.

The pump and control system will need to be purchased separately, however no additional accessory is required. A safety valve is mandatory and expansion vessel recommended for recirculating systems.

Use with renewables

A Bosch 32C water heater is designed to work with pre-heated water, for example, from a solar thermal system or heat pump(s).

Fluing

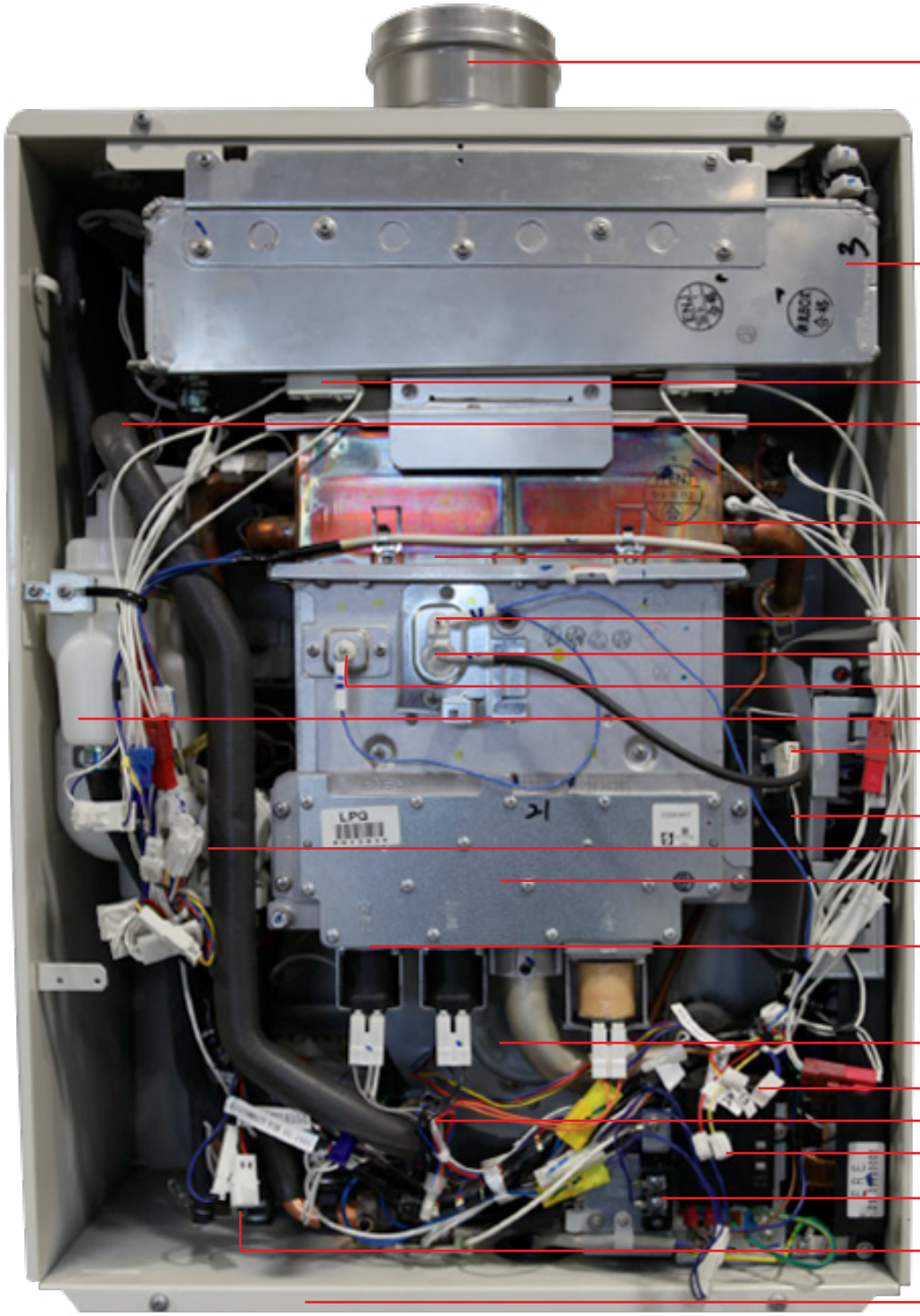
Fluing for internal installations of the Bosch 32C, is a system which is supplied exclusively by Bosch. These high quality flue components are made from polypropylene (PP), making them corrosion resistant, and easy to install.

The 32C flueing includes easy push-fit joints, lightweight components and vertical and horizontal flue terminals.

Technical Data - 32C

	Bosch 32C
Height	615mm
Width	464mm
Depth	240mm
Weight	33 kg
Hot/Cold Water Conn	3/4”
Condensate Conn	1/2”
Gas Connection	3/4”
Maximum Output	57.5kW
Minimum Input	11 Mj/Hr
Maximum Input	217 Mj/Hr
Minimum working, Gas Pressure	1.13 kPa (NG) 2.75 kPa (LPG)
Maximum Static	3.5 kPa (NG & LPG)
Minimum Water Pressure	200kPa
Maximum Water Pressure	900kPa
Minimum Operating Flow Rate	2.5 l/min
Installation	Indoor/Outdoor
Air supply/Exhaust	Power Flue
Ignition	Direct Electronic Ignition
Water holding capacity	1.9 l/min
Maximum Hot Water Capacity (25°C Rise)	32 l/min
Capacity Range	2.5 -42 l/min
Maximum Temperature setting – BC3200RA	85°C
M[illegible]um Temperature setting – BC3200RA5	50°C
Power supply	230-240 VAC 50Hz
Power Consumption	127W
Power Consumption – with antifrost	185W
Power cable	1.5m
Noise Rating	50dB
Relief valve setting	1620 kPa
Manufacturing Material	Casing – Zincified steel plate/ Polyester Powder Coating Flue Collar – Stainless Steel
Colour	Munsell 9.3YR8.4/10

Inside Story – Bosch 32C



Guidance on installing the Bosch 32C condensing water heater

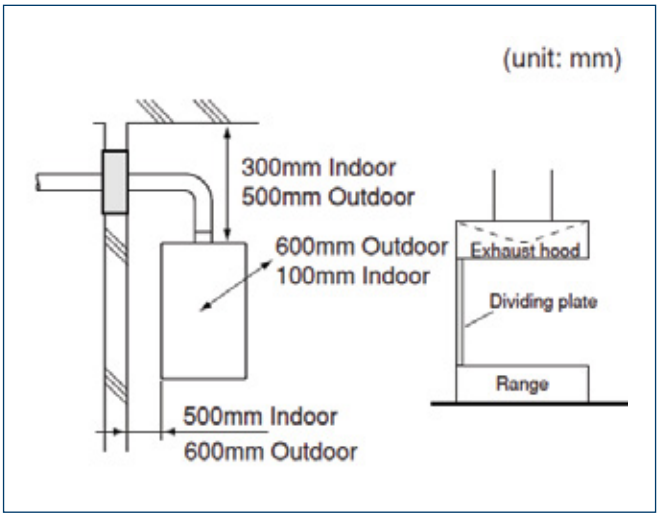
Siting the appliance

The Bosch 32C can be installed in both indoor and outdoor applications, with the correct flue accessories. Outdoor installations require a vent cap to be installed with the appliances (see page 14), and indoor installations require Bosch PP fluing (see page 14).

Avoid areas where corrosive or flammable gases may be present.

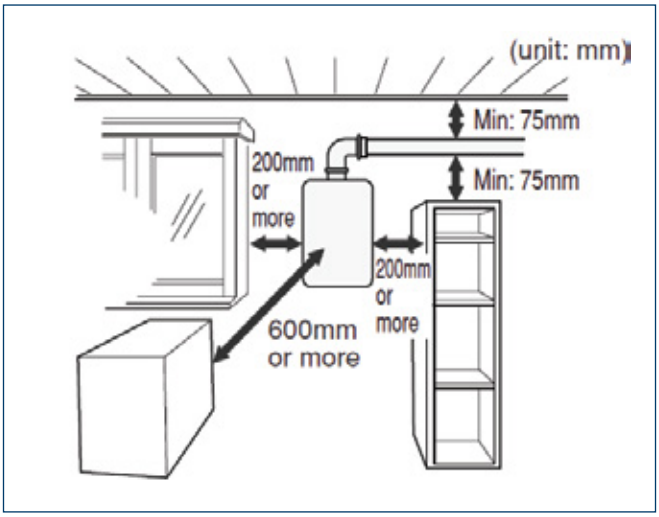
Flue exhaust should be considered when siting the appliance as clearance regulations for both indoor and outdoor installations exist (refer AS/NZS 5601)..

Wall and ceiling clearances



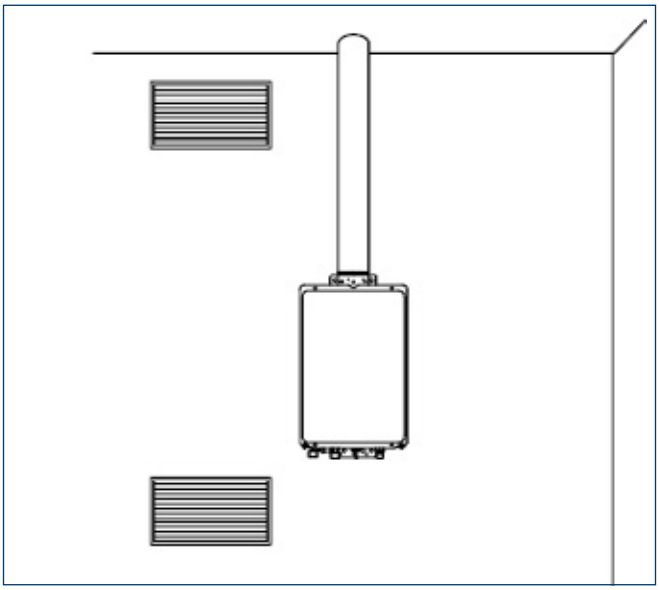
Clearances for ensuring repair/inspection space

The minimum clearances (shown below) should be followed to ensure that sufficient room is available for servicing the appliance.



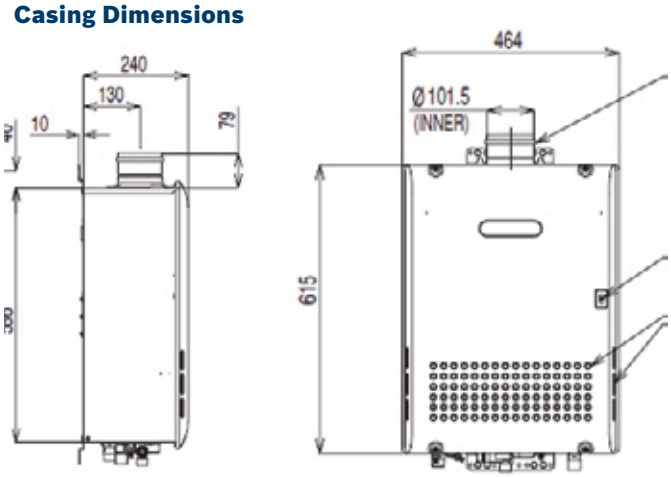
Air inlet

Internal installations of the Bosch 32C require adequate ventilation as per AS/NZS5601. Ensure that the air inlet is adequately sized and is in accordance with AS/NZS5601. The air inlet needs to be open to the outside air from the room or area in which the water heater is used.

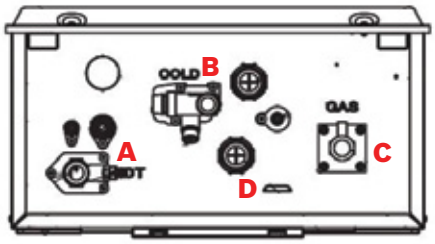


Openings supplying indoor air.

Casing Dimensions

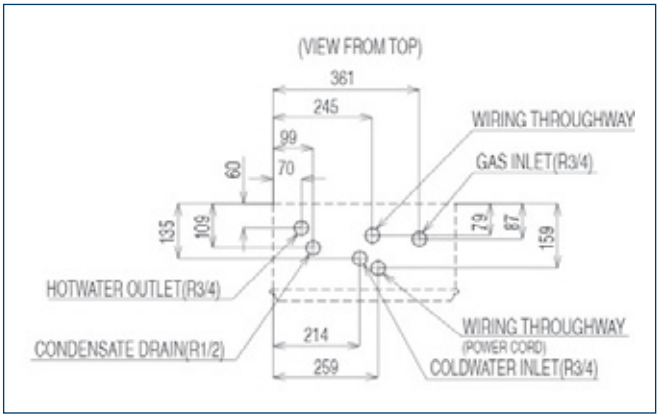


Connection Measurements



Pipework Connections		
A	Hot water outlet	3/4”
B	Cold water inlet	3/4”
C	Gas connection	3/4”
D	Condensate outlet	1/2”

Connection dimensions



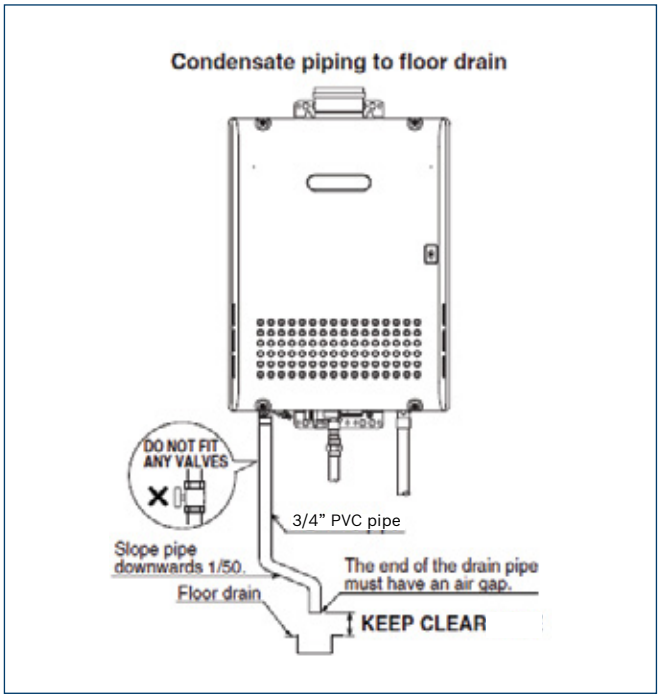
Condensate pipework

This system is supplied with a pre-installed condensate neutralisation system. This neutraliser will remove any acidity that is present in the condensate. This means that no further steps are required to treat the condensate, unless local laws specify otherwise.

In colder areas, considerations should be taken in order to stop the drainline from freezing. If the temperature is likely to drop below 0°C, take measures to prevent the condensate drain from freezing by installing insulation, heat tape or electric heaters.

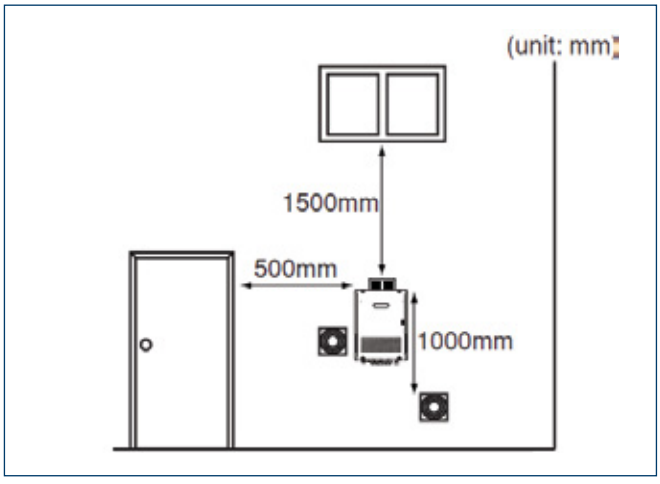
Important points to consider when siting a condensate drainage pipe

- Ensure the plastic piping is no smaller than ¾” in diameter
- Use plastic pipe. Do not use steel, black iron or other corrodible material
- Keep the length of the drainline as short as possible
- Horizontal runs must be sloped 1/50 downwards towards the drain
- The drain end should not be submerged in water or blocked in any way


Condensate piping to floor drain
DO NOT FIT ANY VALVES
3/4” PVC pipe
Slope pipe downwards 1/50.
The end of the drain pipe must have an air gap.
Floor drain
KEEP CLEAR

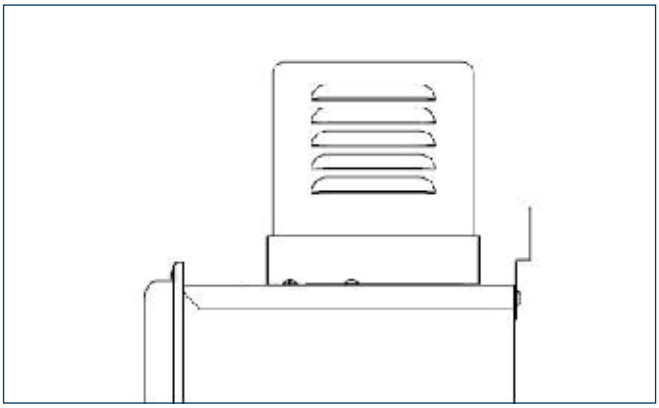
Outdoor clearances to doors & windows

Outdoor installations should have the minimum clearances shown below to ensure that flue exhaust cannot enter into surrounding buildings.



Outdoor Vent Termination

When installing the Bosch 32C outdoors, a Vent Cap is required (code: BCVC-100C).



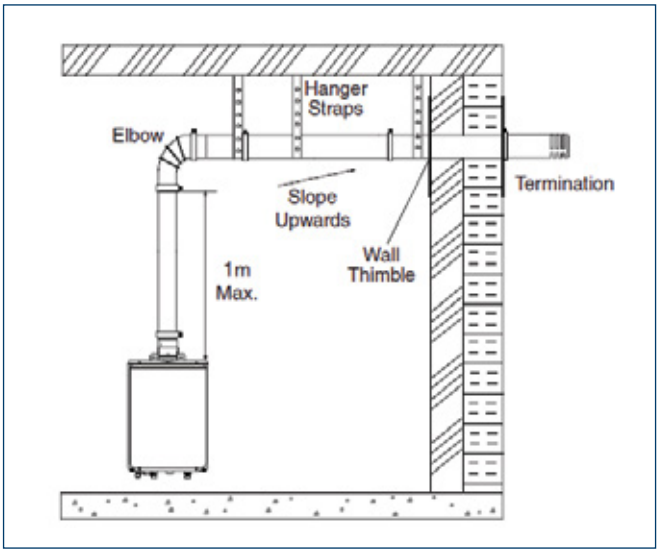
Horizontal Vent Termination

The following considerations must be made when venting horizontally

- Terminate at least 350mm above the ground
- Terminate at least 2.3m above public walkways, 2m from the combustion air intake of any appliance, and 1m from any other building opening, gas utility meter or service regulator

Terminate at least (as per AS/NZS5601):

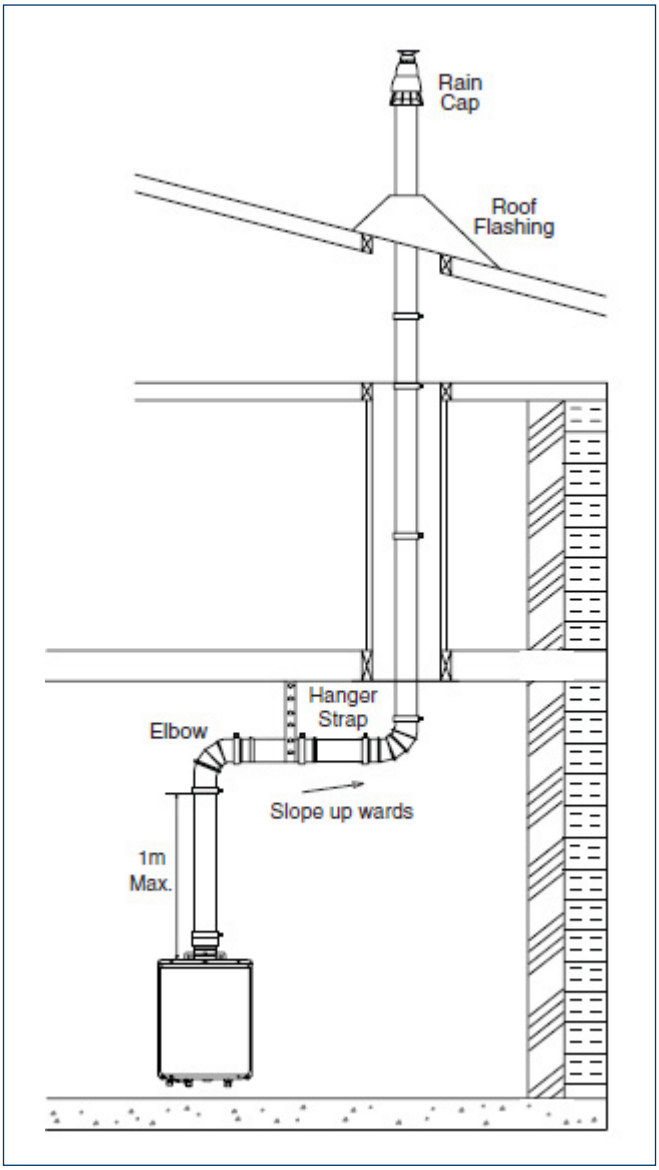
- 1m above any forced air inlet
- 1.5m below any door, window or non-mechanical air inlet
- 0.5m horizontally from any door, window or non-mechanical air inlet
- 0.3m above any door, window or non-mechanical air inlet
- Slope the horizontal vent 50mm upwards for every 1m
- Use a condensation drain if necessary



Vertical Vent Termination

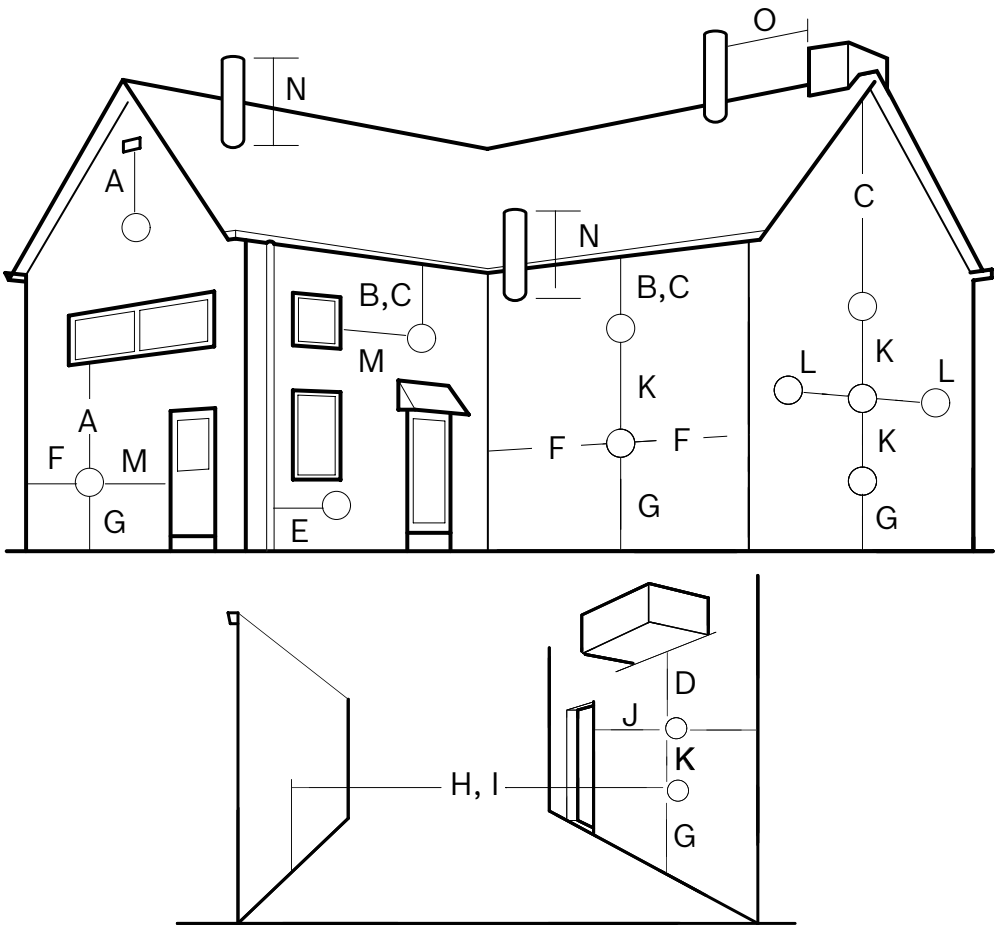
The following considerations must be made when venting vertically

- Terminate at least 1.8m from the combustion air intake of any appliance, and 1m from any other building opening, gas utility meter, service regulator etc
- Terminate the vent system at least 600mm above but not more than 2m above the roof line
- Provide vertical support every 3.6m of flue
- Slope the horizontal vent 50mm upwards for every 1m



Horizontal and vertical flue terminal positioning

Flue terminal positions for water heaters in accordance with AS/NZS5601.



- The water heater must be installed so that the terminal is exposed to the external air.
- Pluming may occur at the terminal. Consideration should be given when choosing a terminal location.
- It is important that the position of the terminal allows the free passage of air at all times
- Minimum acceptable spacing from the openings are specified above, in accordance with AS/NZS5601.

Key to illustration

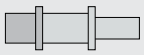
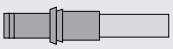
Balanced flue terminal position		
Terminal Position		**Minimum Spacing**
A	Directly below, above or alongside an opening window, air vent or other ventilation opening	1,500mm
B	Below guttering, drain pipes or soil pipes	75mm
C	Below eaves	300mm
D	Below balconies or a car port roof*	300mm
E	From vertical drain pipes or soil pipes	75mm
F	From internal or external corners	300mm
G	Above adjacent ground, roof or balcony level	300mm
H	From a surface facing the terminal	1,500mm
I	From a terminal facing the terminal	1,200mm
K	Vertically from a terminal on the same wall	1,500mm
L	Horizontally from a terminal on the wall	300mm
M	Adjacent to opening	1,500mm
N	Above intersection with roof	500mm
O	For a vertical structure on the roof	500mm

Bosch 32C water heater
Flueing configurations

The Bosch 32C water heater uses the 100mm polypropylene flue system supplied by Bosch.

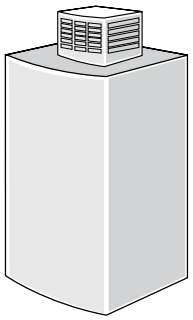
The maximum flue length is 13m. For every 90 degree elbow subtract 2m from the maximum length. For every 45 degree elbow subtract 1m from the maximum length.

Available flue components

Components	Part No.	Description
	BCVC-100C	Stainless Steel Vent Cap
	MG85176	PP extension pipe 100 x 500m
	MG85177	PP extension pipe 100 x 1000mm
	MG 85181	PP flue elbow, 90°, 100m diameter
	MG85182	PP flue elbow, 45°, 100mm diameter
	MG84631	Wall bracket suitable for 32C flueing
	MG87930	Horizontal wall terminal, PP & aluminum 100mm diameter
	MG84862	Vertical roof terminal, PP, 100/150mm dia, incl air cover MG75439
	MG27356	Sealing Ring, please note: 1 unit required for every internal installation

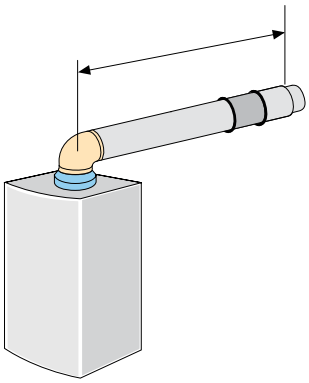
The following considerations should be made when planning the installation

- Use only Bosch flue materials
- Vertical sections of flue must be as short as possible
- Maintain the same flue pipe diameter throughout the entire flue
- Ensure that connections are gas tight and will not leak. Use heat resistant silicon sealant wherever necessary
- Use a maximum of 1m straight pipe before the first elbow

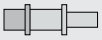


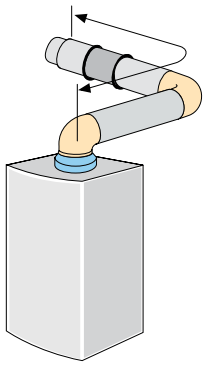
Outdoor installation

Components	
Part Numbers	BCVC-100C
Maximum length (mm) & no. of components required	
N/A	1



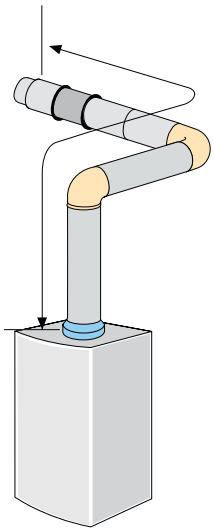
Standard internal horizontal flue assembly

Components				
Part Numbers	MG27356	MG85181	MG85176 MG85177	MG87930
Maximum length (mm) & no. of components required				
11,000	1	1	1 or more	1



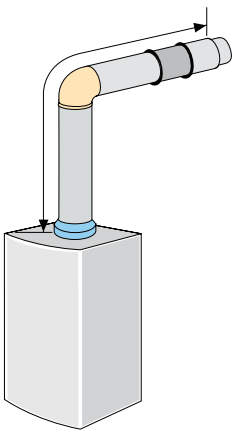
Standard horizontal flue assembly with 90° bend

Components				
Part Numbers	MG27356	MG85181	MG85176 MG85177	MG87930
Maximum length (mm) & no. of components required				
9,000	2	2	2 or more	1



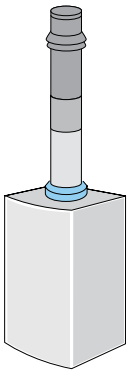
Extension horizontal flue with two 90° bends

Components				
Part Numbers	MG27356	MG85181	MG85176 MG85177	MG87930
Maximum length (mm) & no. of components required				
9,000	1	2	3 or more	1

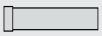
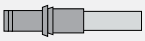


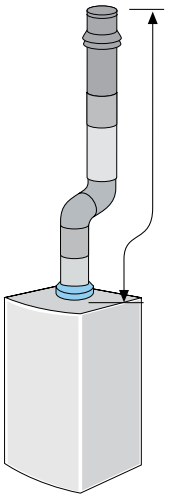
Extension horizontal with one 90° bend

Components				
Part Numbers	MG27356	MG85181	MG85176 MG85177	MG87930
Maximum length (mm) & no. of components required				
11,000	1	2	2 or more	1

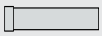
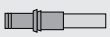


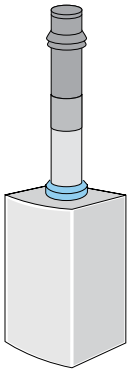
Standard vertical flue - Minimum length

Components			
Part Numbers	MG27356	MG85176	MG84862
Maximum length (mm) & no. of components required			
500	1	1	1

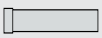
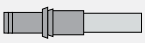


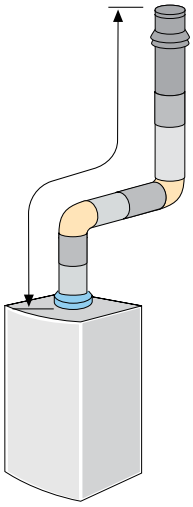
Vertical flue - two 45° bends

Components				
Part Numbers	MG27356	MG85176 MG85177	MG85182	MG84862
Maximum length (mm) & no. of components required				
11000	1	2 or more	2	1

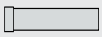
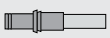


Standard vertical flue – Maximum length

Components			
Part Numbers	MG27356	MG85176	MG84862
Maximum length (mm) & no. of components required			
13000	1	1 or more	1



Vertical flue – two 90° bends

Components				
Part Numbers	MG27356	MG85176 MG85177	MG85181	MG84862
Maximum length (mm) & no. of components required				
9000	1	2 or more	2	1

Note: The maximum flue length must be reduced by the following amounts for each bend used.

Bosch 32C 100mm flues	
45° Bend	1m
90° Bend	2m

The **Bosch** 32 and 32Q water heaters

	Bosch 32 & 32Q
Part No NG	KM3211WHNG KM3211WHQNG*
Part No LPG	KM3211WHLP KM3211WHQLP*
Output (kW)	Max 55 kW
Input (Mj/h) Max	250
Input (Mj/h) Min	20 (NG) 18 (LPG)
Flow rate at 50'C	16L
Flow rate at 25'C	32L
Install Application	Internal or External
Available Gas Type	Natural & LP Gas
Star Rating	4.8
Efficiency	77.4%

Features	Benefits
Continuous flow hot water heater	On demand and sustained delivery
Natural gas and LPG models	Fuel flexibility
Up to 3 temperatures controllers	Remote temperature control and service and maintenance assistance
Water temperature adjustment connector	Ability to adjust to multiple temperature settings without controller
Direct integration with solar heating	Adaptable to ecologically sustainable design requirements
Accessory to control manifold of up to 6 appliances	Maximises output up to 192 l/min at a 25 deg. temperature rise
Internal / External installation	Installation flexibility

*Single appliance application only

The features of the 32 commercial water heater

Designed for commercial reliability

The Bosch 32 has been designed for the Australian and New Zealand commercial environment. With a 25% thicker commercial grade heat exchanger to aid prevention of corrosion and deteriotation, the Bosch 32 is a hardwearing appliance that will last longer in high demand hot water applications.

Applications

Suitable for any high demand environment the Bosch 32 water heater is ideal for large domestic and commercial applications.

At 55kW heating output, the Bosch 32 water heater offers the following performance:

- Up to 16 litres per minute with 50ºC rise
- Up to 32 litres per minute with 25ºC rise

The Bosch 32 water heater can be used with NG or LPG and can be installed as a single appliance or multiples of up to 6 units with appropriate accessories.

Extended flue lengths of up to 13m are also possible, helping to provide even greater design flexibility.

Large Domestic

The Bosch 32 water heater is ideal for large domestic applications where:

- There is increased demand for DHW – e.g. multiple fixtures such as sinks and showers
- Pre-heated water supply is to be used – e.g. by solar thermal

Light commercial

Ideal for light commercial applications with:

- High demands for DHW – e.g. multiple fixtures such as sinks and showers
- Where demands for DHW are consistent throughout the day

Commercial

Suitable for large commercial applications where there is:

- Consistent high demands for DHW – e.g. Processing plants, hospitals
- Very high cyclic demands for DHW – e.g. hotels, schools

The Bosch 32C's ability to use water pre-heated by renewable heat sources supports planning and investment requirements.

Such applications can take full advantage of the cascade controls that are part of the Bosch 32 offering. These controls provide the ability to deliver up to 192 litres of hot water a minute, on demand.

Certain commercial applications may also take advantage of the ability to provide a hot water temperature of up to 83°C for sterilisation processes and secondary circulation.

Key benefits to the user

High volumes

- Use of multiple fixtures such as sinks and showers

Cost savings

- Low maintenance and replacement costs
- Compact size and modular design allows low cost retrofit installations

Low environmental impact

- Solar compatible system suitable for use with pre-heated water from renewables
- Compatible with hot water secondary circulation to reduce water wastage

Key benefits for installers

- Flexible design options
- Compact, low-space design
- NG and LPG versions
- Horizontal or vertical flue options
- Frost protection

Ease of installation and maintenance

- Error codes functionality with optional controller
- Wall mounted and floor standing options
- Easy access to components
- Compact design
- Internal and external installation
- Available in 37°C – 83°C
- Commercial grade heat exchanger

Cascading

With optional system controllers linking up to 6 water heaters together in parallel allows a maximum water flow of up to 192 litres per minute with a 25ºC rise.

Bosch's intelligent cascading software will automatically rotate the lead appliance after each 8 hours of operation, distributing the workload equally across the water heaters in the cascade, increasing the longevity of the appliances.

The features of the 32Q commercial water heater

The Bosch 32Q has been designed for flow and return applications. With the same 25% thicker commercial grade heat exchanger as the Bosch 32, the Bosch 32Q is a hardwearing appliance that will last longer in high demand hot water applications. The Bosch 32Q internal pump allows for programmed water recirculation in peak usage times. This results in fast delivery of hot water to the fixtures, with minimal water wastage.

Applications

Suitable for any high demand environment the Bosch 32Q water heater is ideal for large domestic and commercial applications with long runs to hot water outlets.

The Bosch 32Q can only be used as a single appliance in flow and return applications. The Bosch 32Q cannot be used in series or cascade applications.

At 55kW heating output, the Bosch 32Q water heater offers the following performance:

- Up to 16 litres per minute with 50ºC rise
- Up to 32 litres per minute with 25ºC rise

The Bosch 32Q water heater can be used with NG or LPG.

When installing the 32Q, ensure the following is adhered to- the maximum flow and return length should be no greater than 60m in total with a maximum of 20 bends

- The flow should be 3/4” with a return of 1/2”
- Insulation on the pipework should meet R3 standard or above
- No branch lines or fittings off the return line
- Tempering valves, where required should only be fitted to branch lines

Extended flue lengths of up to 13m are also possible, helping to provide even greater design flexibility.

The Bosch 32Q water heater is ideal for larger applications where there are long hot water lines such as:

Large Domestic

- use of multiple fixtures such as sinks and showers
- Pre-heated water supply is to be used – e.g. by solar thermal

Typical examples include larger homes.

Key benefits to the end user

High volumes of hot water

- Multiple showers, sinks and baths at the same time

Cost savings

- Low maintenance and replacement costs
- Integrated timer function can restrict recirculation to the times when it is required

Key benefits for installers

- Compact, low-space design
- NG and LPG versions
- Horizontal or vertical flue options
- Frost protection

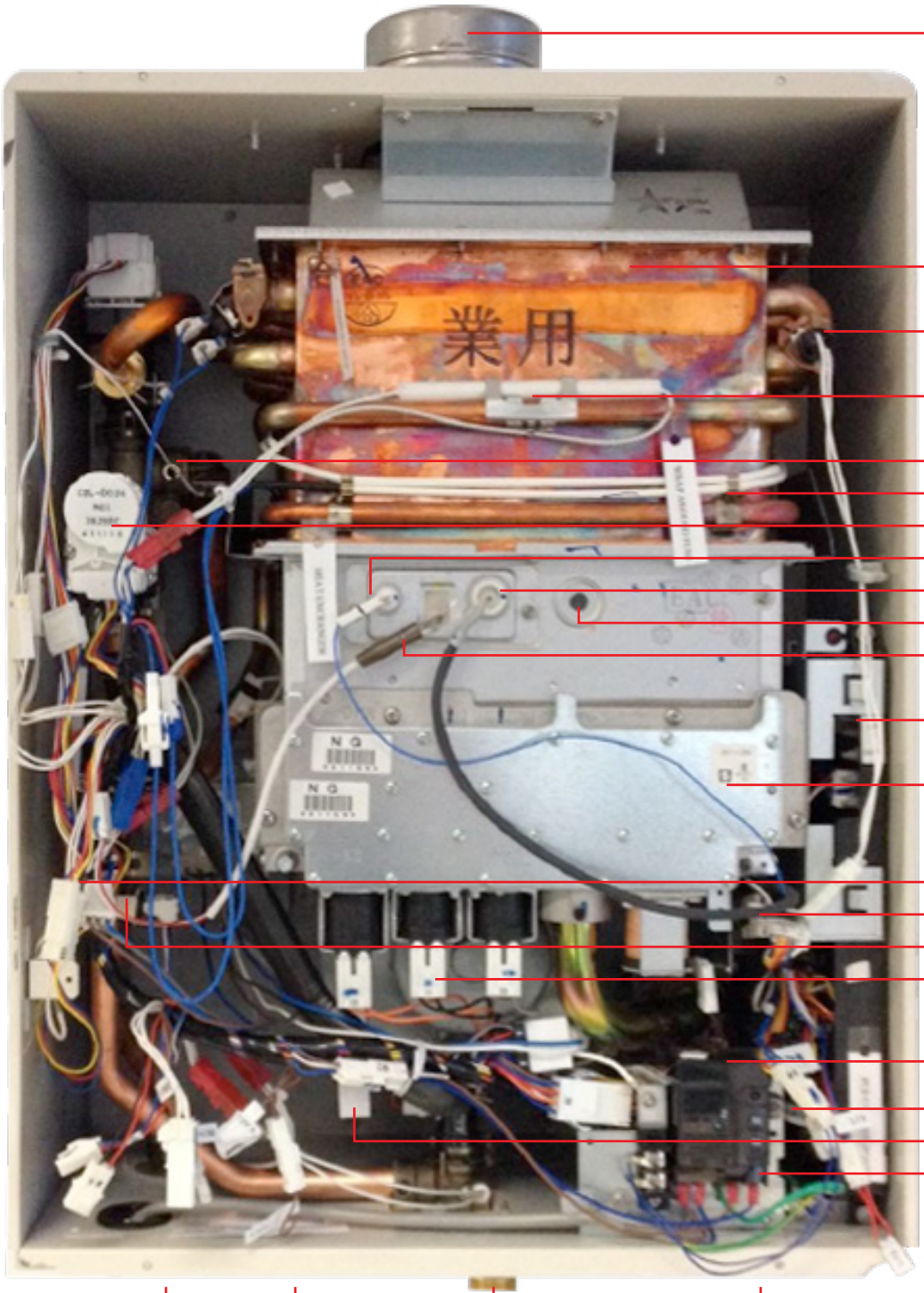
Ease of installation and maintenance

- Error code functionality with supplied controller
- Easy access to components
- Compact design
- Internal and external installation
- Is available in 37°C – 80°C
- Commercial grade heat exchanger

Technical Data - 32 & 32Q

	Bosch 32	Bosch 32Q
Height	615mm	
Width	464mm	
Depth	240mm	
Weight	29 kg	32 kg
Hot/Cold Water Conn	3/4” Male	
Hot Water Return	-	1/2” Male
Gas Connection	3/4" Male	
Maximum Output	55kW	
Minimum Input	20Mj/Hr (NG) - 18Mj/Hr (LPG)	
Maximum Input	250 Mj/Hr	
Minimum Gas Pressure	1.13 kPa (NG) 2.75 kPa (LPG)	
Maximum Gas Pressure	3.5 kPa (NG & LPG)	
Minimum Water Pressure	200kPa	
Maximum Water Pressure	900kPa	
Minimum Operating Flow Rate	3.5 l/min	
Installation	Indoor/Outdoor	
Air supply/Exhaust	Fan Assisted	
Ignition	Electronic Ignition	
Water holding capacity	1.1 l/min	
Maximum Hot Water Capacity (25°C Rise)	32 l/min	
Capacity Range	3.0 – 32.0 l/min	
Maximum Temperature setting	83°C	80°C
Power s y	230-240 VAC 50Hz	
Power Consumption	100W(NG) 115W(LPG)	135W(NG) 150W(LPG)
Power Consumption – with antifrost	115W	140W
P ower cable	1.5m	
Noise Rating	50dB	
Relief valve setting	1620 kPa	
Manufacturing Material	Casing – Zincified steel plate/ Polyester Coating. Flue Collar – Stainless Steel	
Colour	Munsell 9.3YR8.4/10	

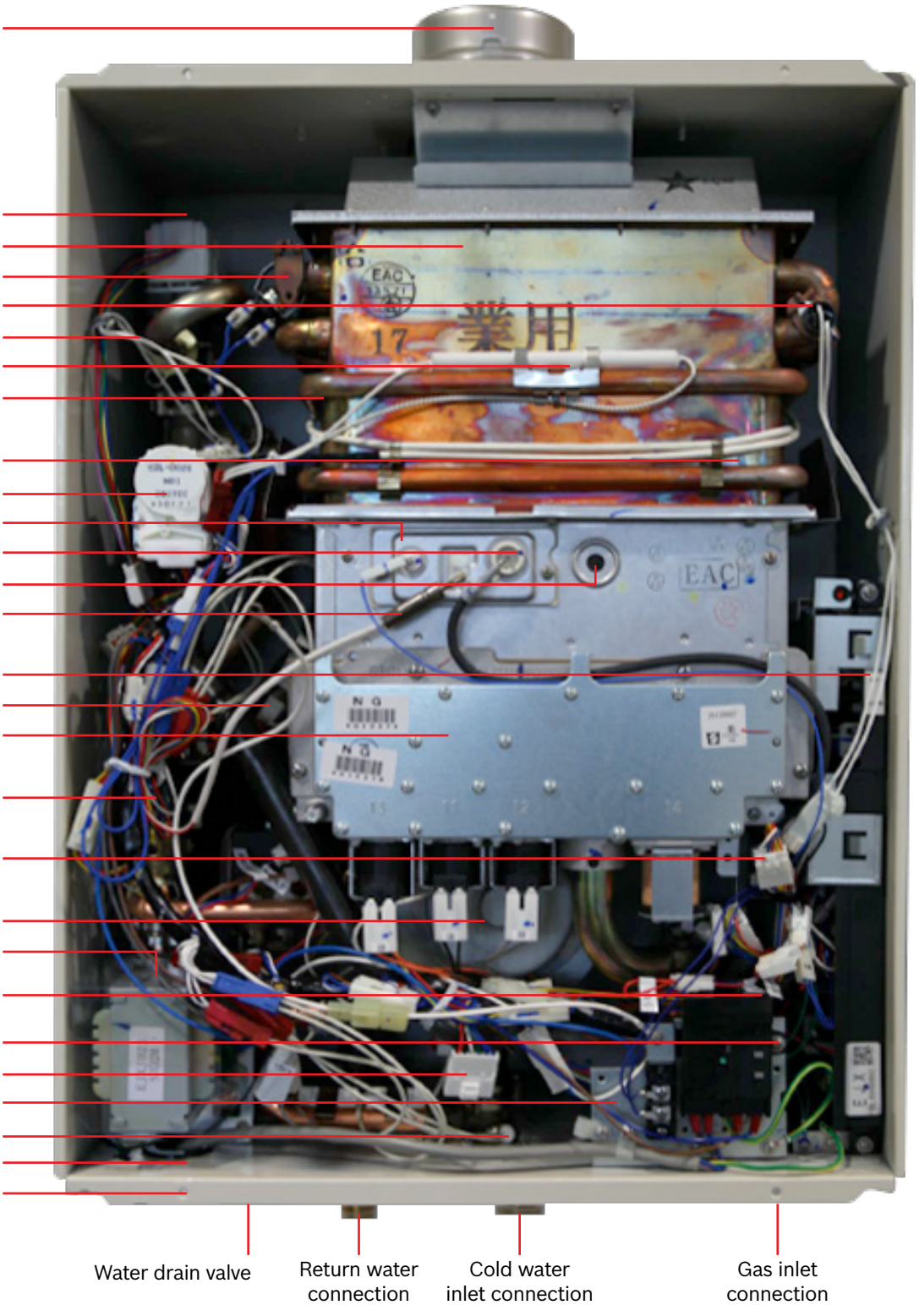
Inside Story – Bosch 32



Flue collar
Heat exchanger
High limit switch
Freeze protection heater Q
Hot water outlet thermister
Thermal fuse
Water flow servo
Flame Rod
Ignition electrode
Site glass
Burner sensor
Circuit board
Manifold
Flow water sensor
Igniter
Transformer
Fan motor
Earth leakage circuit breaker (ELCB)
Gas valve mechanism
Water flow sensor
Remote controller terminal block

Hot water outlet
Water drain valve
Water valve
Gas inlet

Inside Story – Bosch 32Q



Guidance on installing the Bosch 32 and 32Q water heaters

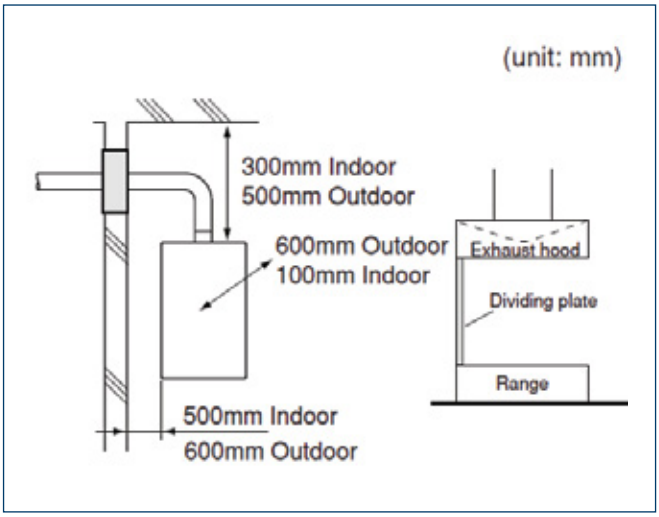
Choosing the location

The Bosch 32 and 32Q can be installed in both indoor and outdoor applications, with the correct flue accessories. Outdoor installations require vent caps to be installed with the appliances (see page 28), and indoor installations require Bosch stainless steel fluing (see page 28).

Avoid areas where corrosive or flammable gases may be present.

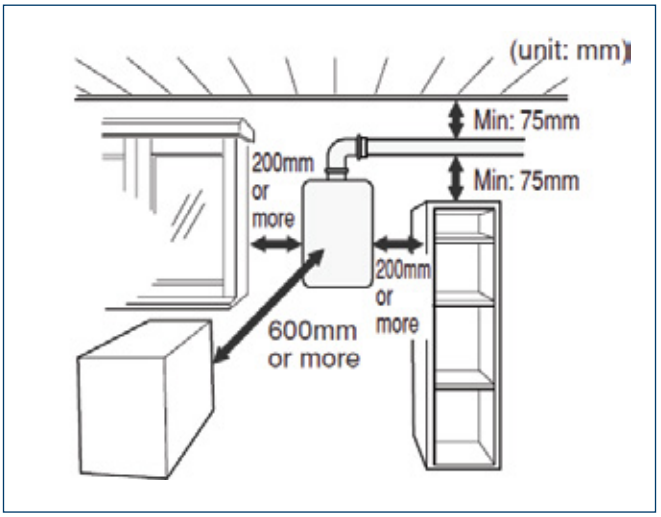
Flue exhaust should be considered when siting the appliance as clearance regulations for both indoor and outdoor installations exist.

Wall and ceiling clearances



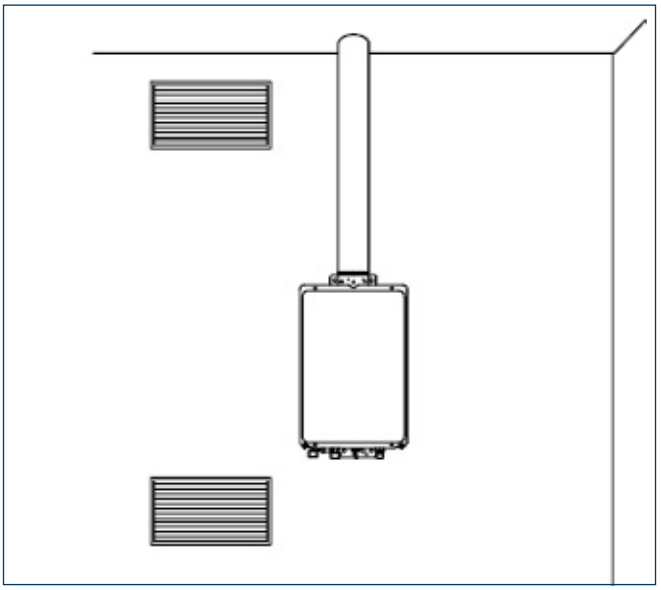
Clearances for ensuring repair/inspection space

The minimum clearances (shown below) should be followed to ensure that sufficient room is available for servicing the appliance.



Air inlet

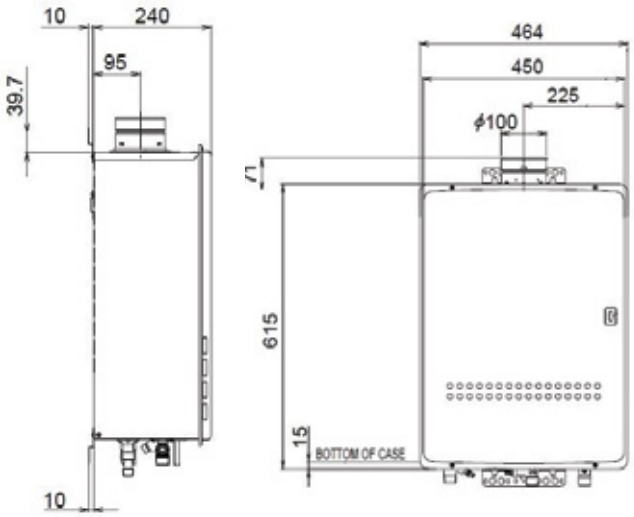
Internal installations of the Bosch 32 require adequate ventilation as per AS/NZS5601.. Ensure that the air inlet is adequately sized and is in accordance with AS/NZS5601. The air inlet needs to be open to the outside air from the room or area in which the water heater is used.



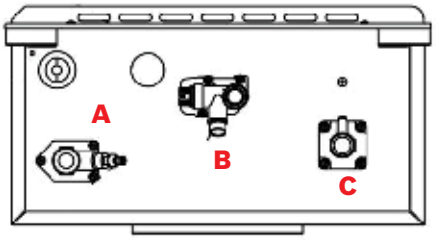
Openings supplying indoor air.

Connection Dimensions

Casing Dimensions

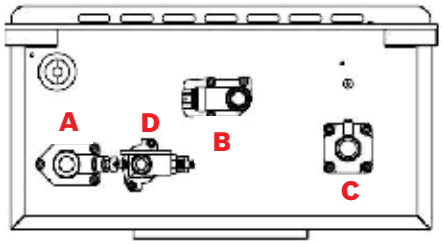


Connection Measurements – Bosch 32



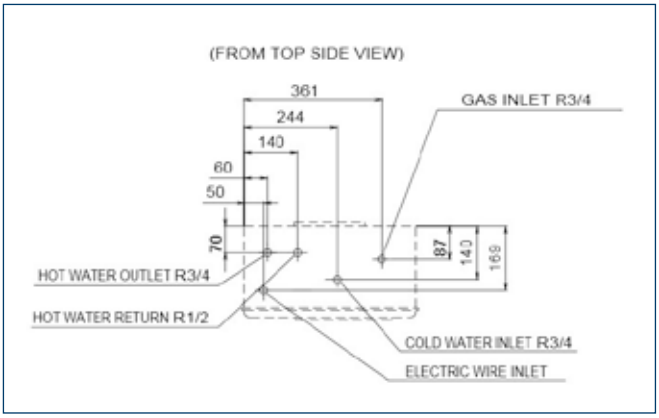
Pipework Connections		
A	Hot water outlet	3/4” Male
B	Cold water inlet	3/4” Male
C	Gas connection	3/4” Male

Connection Measurements – Bosch 32Q



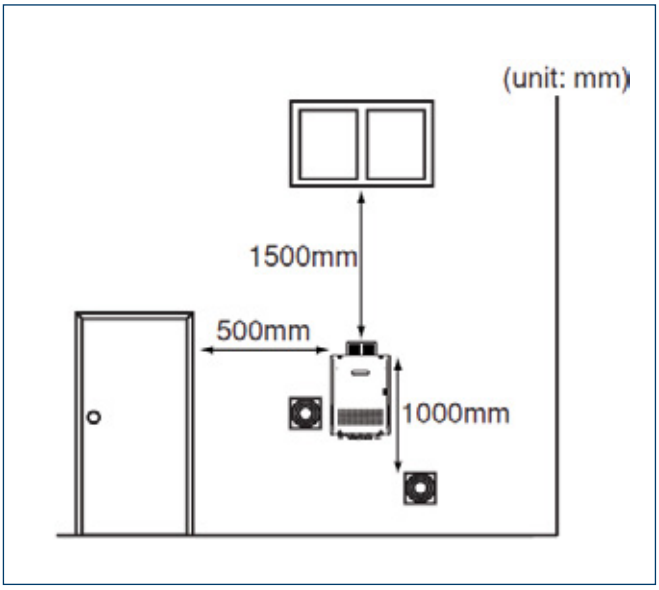
Pipework Connections		
A	Hot water outlet	3/4” Male
B	Cold water inlet	3/4” Male
C	Gas connection	3/4” Male
D	Hot water return inlet	1/2” Male

Connection dimensions



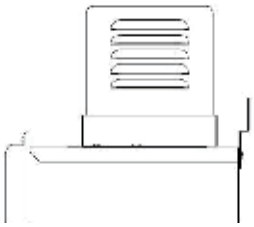
Outdoor clearances to doors & windows

Outdoor installations should have the minimum clearances shown below to ensure that flue exhaust cannot enter into surrounding buildings.



Outdoor Vent Termination

When installing the Bosch 32 outdoors a Vent Cap is required (code: KMVC-100)



Guidance on installing the Bosch 32 water heater

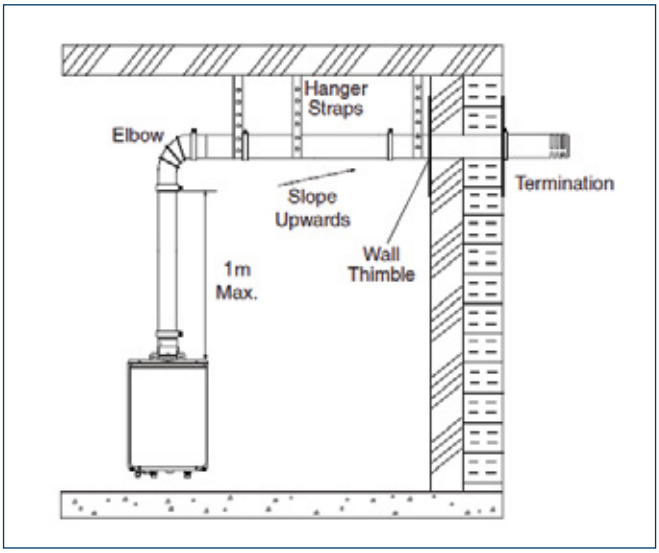
Horizontal vent termination

The following considerations must be made when venting horizontally

- Terminate at least 350mm above the ground
- Terminate at least 2.3m above public walkways, 2m from the combustion air intake of any appliance, and 1m from any other building opening, gas utility meter, or service regulator

Terminate at least (as per AS/NZS5601):

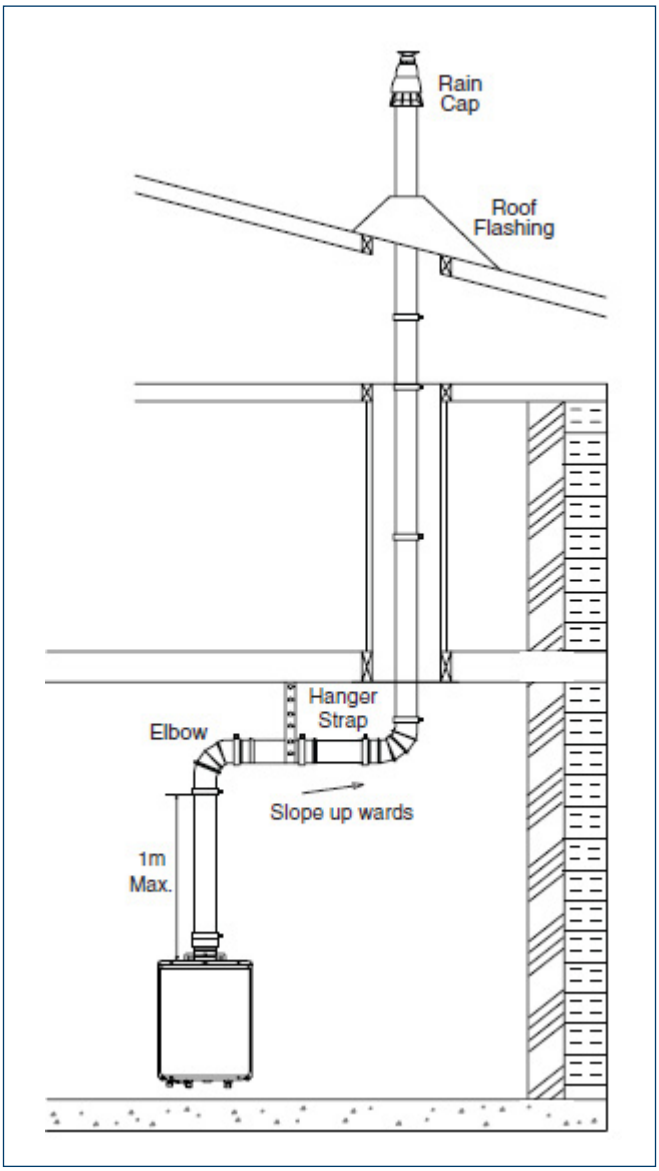
- 1m above any forced air inlet
- 1.5m below any door, window or non-mechanical air inlet
- 0.5m horizontally from any door, window or non-mechanical air inlet
- 0.3m above any door, window or non-mechanical air inlet
- Slope the horizontal vent 500mm upwards for every 1m
- Use a condensation drain if necessary



Vertical vent termination

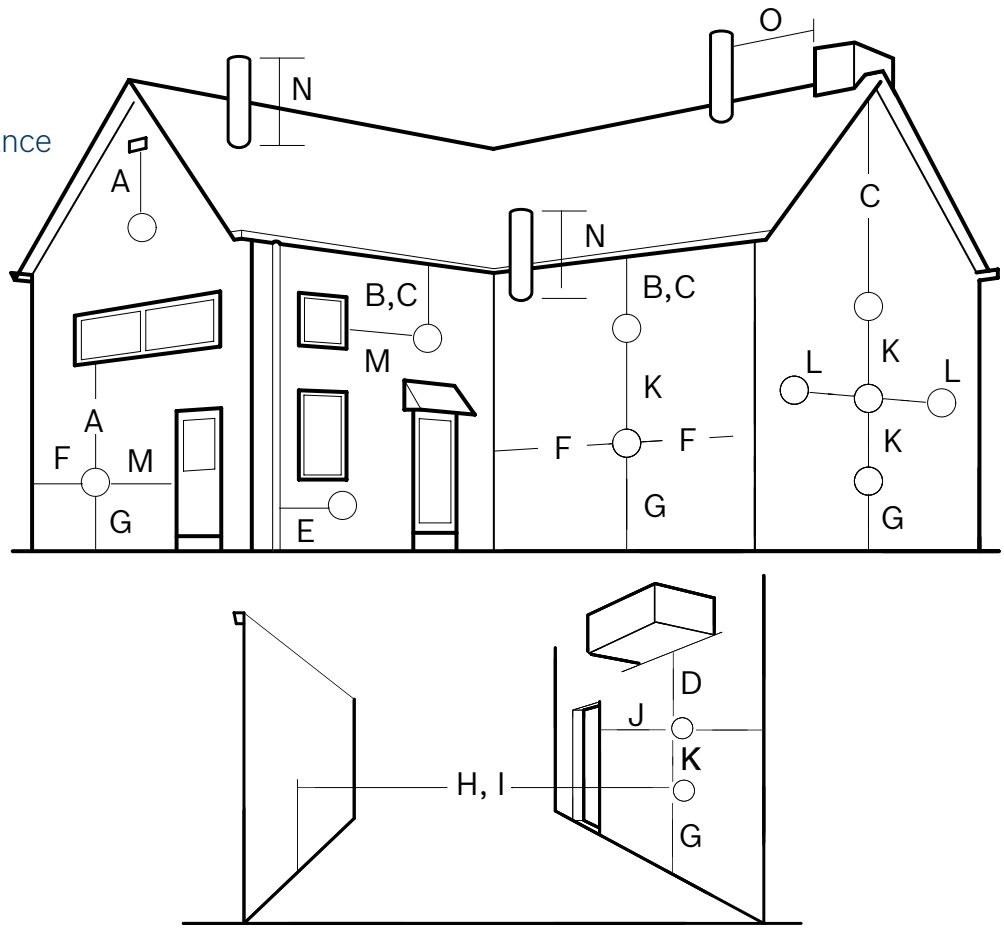
The following considerations must be made when venting vertically

- Terminate at least 1.8m from the combustion air intake of any appliance, and 1m from any other building opening, gas utility meter, service regulator etc
- Terminate the vent system at least 600mm above but not more than 2m above the roof line
- Provide vertical support every 3.6m
- Slope the horizontal vent 50mm downwards for every 1m



Horizontal and vertical flue terminal positioning

Flue terminal positions for water heaters in accordance with AS/NZS5601.



- The water heater must be installed so that the terminal is exposed to the external air
- It is important that the position of the terminal allows the free passage of air at all times
- Minimum acceptable spacing from the openings are specified above, for domestic situations in accordance with AS/NZS5601

Key to illustration

Balanced flue terminal position		
Terminal Position		**Minimum Spacing**
A	Directly below, above or alongside an opening window, air vent or other ventilation opening	1,500mm
B	Below guttering, drain pipes or soil pipes	75mm
C	Below eaves	300mm
D	Below balconies or a car port roof*	300mm
E	From vertical drain pipes or soil pipes	75mm
F	From internal or external corners	300mm
G	Above adjacent ground, roof or balcony level	300mm
H	From a surface facing the terminal	1,500mm
I	From a terminal facing the terminal	1,200mm
K	Vertically from a terminal on the same wall	1,500mm
L	Horizontally from a terminal on the wall	300mm
M	Adjacent to opening	1,500mm
N	Above intersection with roof	500mm
O	For a vertical structure on the roof	500mm

Bosch 32 & Bosch 32Q
Flueing configurations

The Bosch 32 and 32Q water heaters are flued by the flue kits available. The vertical and horizontal flue kits contain components required for most applications. The maximum acceptable flue length is 13m. For every 90 degree elbow 2m should be subtracted from this length. All internal gas water heaters must be flued and installed with adequate ventilation in accordance with AS/NZS5601.

Vertical Flue Kit

The vertical flue kit contains the following components

- 100mm gas cowl
- 1.5m x 100mm diameter gas flex (3 piece)
- Flue pipe adaptor (3 pieces)
- Support struts (2 pieces)
- 3m x 6mm condensation hose

Horizontal Flue Kit

The horizontal flue kit contains the following components

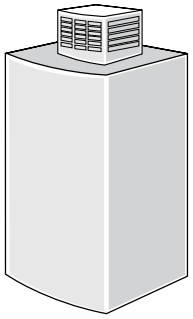
- 100mm diameter flexible flue, 5m long
- Flue sleeve
- Adjustable wall penetration sleeve (2 pieces)
- Clamp

The following considerations should be made when planning the installation

- Vertical sections of flue must be as short as possible
- Ensure the joins are gas tight and will not leak. Use heat resistant silicon sealant wherever necessary.
- Use a maximum of 1m straight pipe before the first elbow

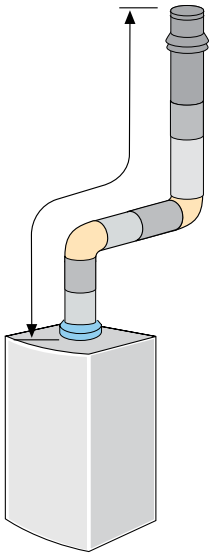
Available flue components

Components	Part No.	Description
	KMVC-100	Vent Cap
	FKV32LTR	Vertical Flue Kit
	FKH32LTR	SS flue elbow, 90°, 100m diameter



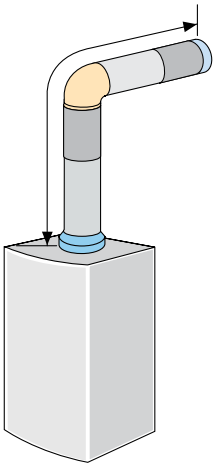
Outdoor installation

Components	
Part Numbers	KMVC-100
Maximum length (mm) & no. of components required	
N/A	1



Standard vertical flue kit

Part No 100mm	FKV32LTR
Maximum length (mm) & no. of components required	
9m	1 kit



Standard horizontal flue kit

Part No 100mm	FKH32LTR
Maximum length (mm) & no. of components required	
11m	1 kit

System Layouts

Flow and return applications

The Bosch 32 has a durable heat exchanger that allows it to withstand the frequent low-fire rates of a flow and return system.

To reduce water wastage, a flow and return system will circulate hot water through the pipe work of the property to ensure hot water is immediately available when a tap is opened.

A thermostat placed in the pipe work at a distant point to the heater activates a pump when water temperature drops below a set point, thus activating the appliance.

Bosch supplies Wilo dual secondary pump systems and thermostats to be installed in flow and return applications. For the performance of these pumps please refer page 36.

The pump will need to be purchased separately, however no additional accessory is necessary. A safety valve is mandatory and expansion vessel recommended for recirculating systems.

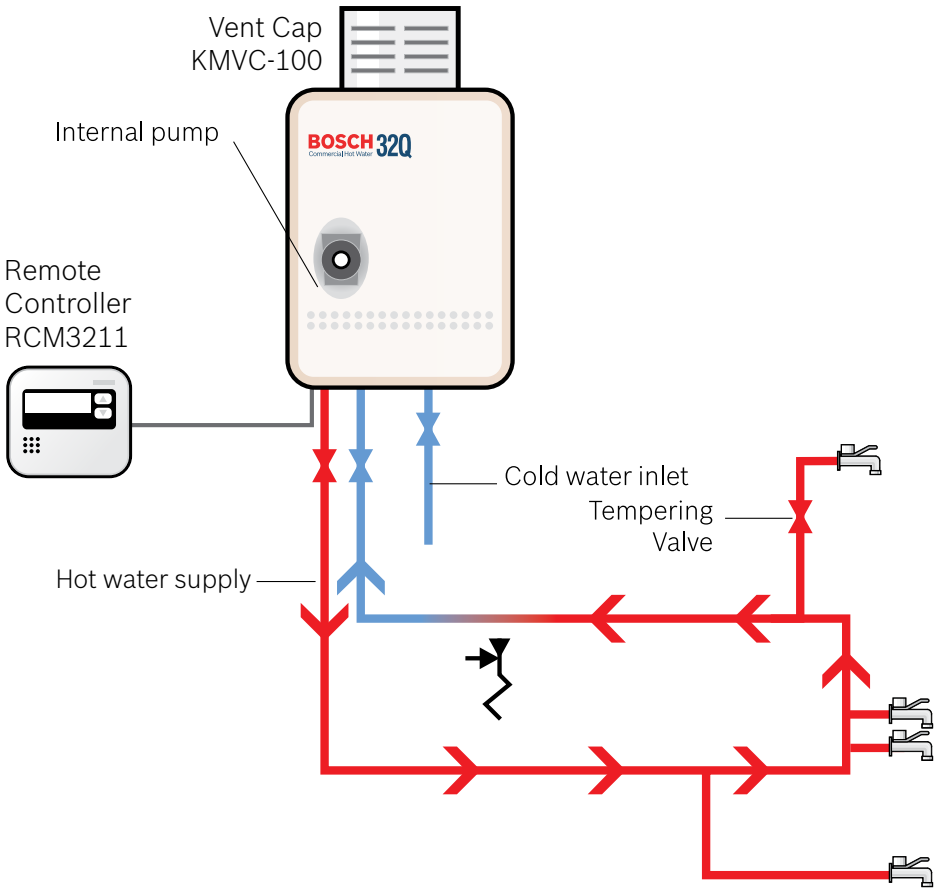
Use with renewables

A Bosch 32 series water heaters are designed to work with pre-heated water from, for example a solar thermal system or heat pump system.

System Layouts

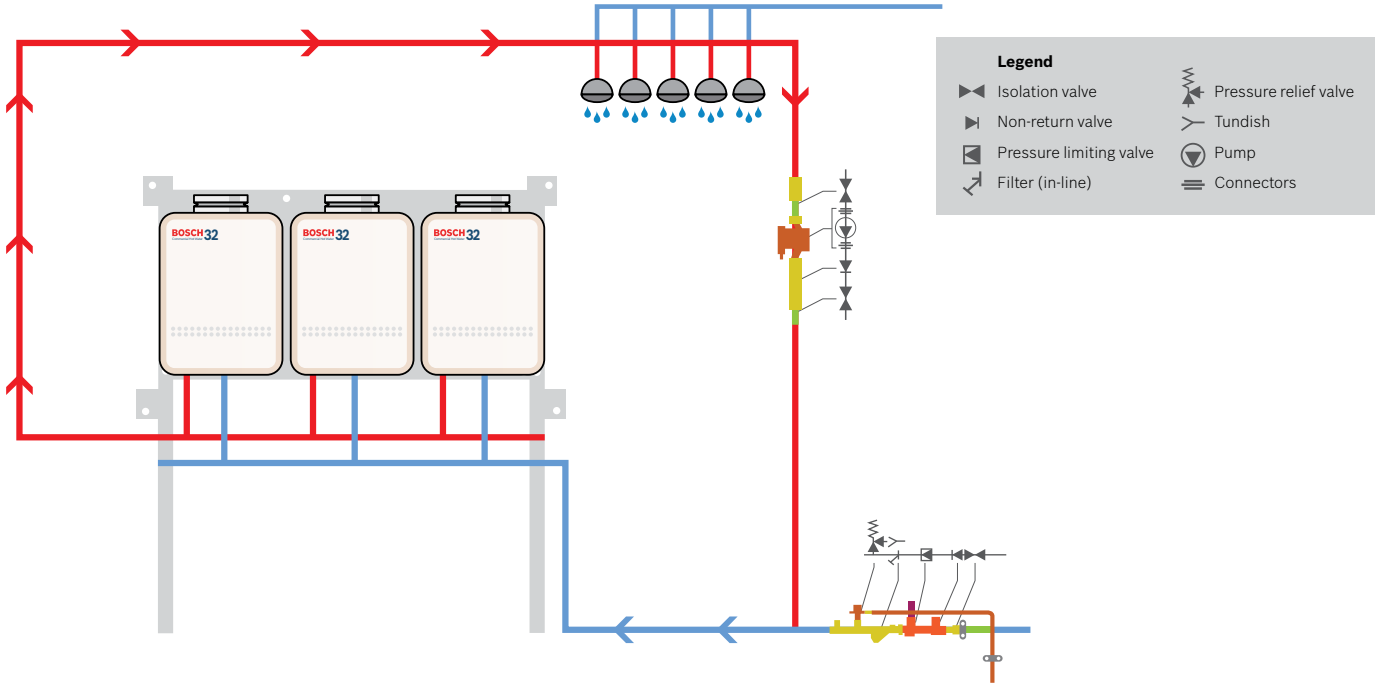
Bosch 32 water heater Domestic Flow and Return Applications Layout

Note: Suitable layout for Bosch 32Q ONLY



Bosch 32 Water Heater Cascade Application Layouts

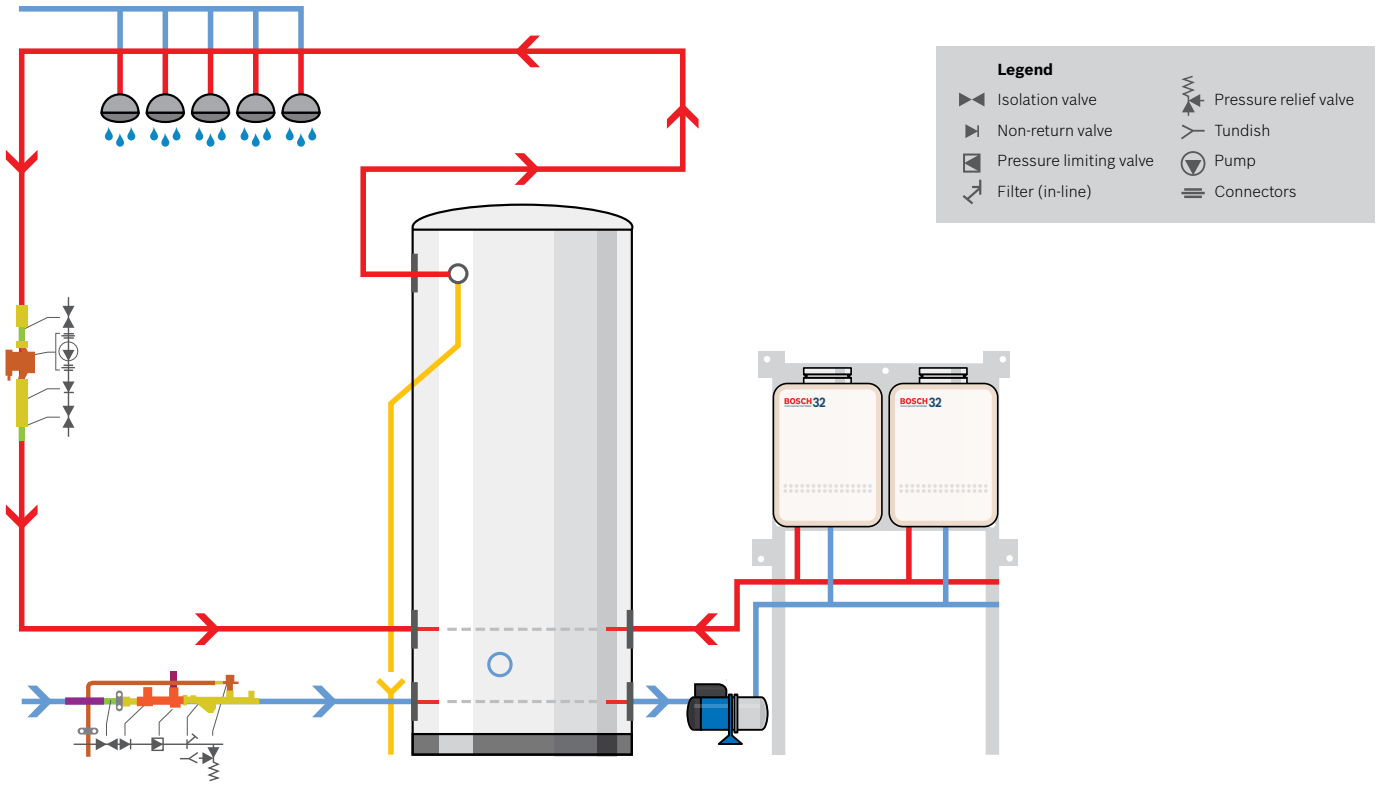
Note: Suitable layout for Bosch 32 & 32C ONLY



System Layouts

Bosch 32 Water Heater Cascade & Storage Application Layouts

Note: Suitable layout for Bosch 32 & 32C ONLY



Bosch Commercial 32 Series Accessories

Controllers

Main Remote Controller

Part No: RCM3211

- Time display
- Temperature settings
- “Burner On” display when in use
- “Circulation mode on” display for 32Q only
- Full diagnostic display
- Maximum of 3 controllers can be fitted to the 32, 32Q or 32C. i.e. 1 Main Controller and up to 2 Sub Controllers

Sub Controller

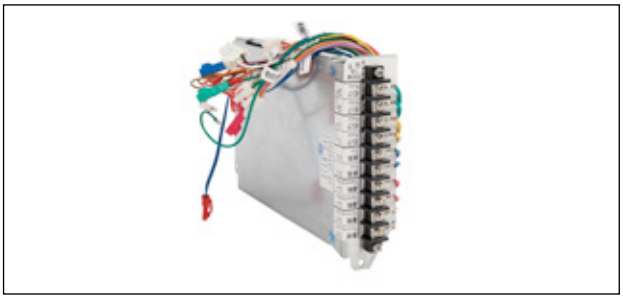
Part No: RCS3211

- Temperature setting
- “Burner On” display when in use
- “Priority” indicator
- Error display
- Suitable for 32, 32Q or 32C

Quick Connect Cable

Part No: 0700073

- Connects any two 32 or 32Cs together
- Enables staging and rotating functions inbuilt in to 32 or 32Cs
- Comes standard in 2 appliance manifold packs
- Only suitable for the 32 or 32C



Systems Controller

Part No: KMSC201

- Connects three to six 32 or 32Cs together
- Enables staging and rotating functions inbuilt in to 32 or 32Cs
- Comes standard in three to six appliance manifold packs
- Only suitable for the 32 or 32C

Senztek Digital Thermostat

Part No: ALPHASTATPLUSWR

- Programmable
- User adjustable water temperature settings
- Biosafe function for legionella protection
- High quality, efficiency, reliability and +/-1°C accuracy
- Sensor diagnostics and smart shutdown
- Standard with manifold tank kits

Controllers

Vent Cap for Bosch 32 & 32Q

Part No: KMVC-100

- Used for outdoor installations of the Bosch 32 or 32Q only

Vent Cap for Bosch 32C

Part No: BCVC-100C

- Used for outdoor installations of the 32C only

Commercial Kit Accessories

Floor Mount Kit

Part No: BFMK32

- Free standing system for Bosch Cascade Pack
- Comes standard with Cascade Therm kits

Connection Kit

Part No: BCK32

- Connects two cascade modules side by side

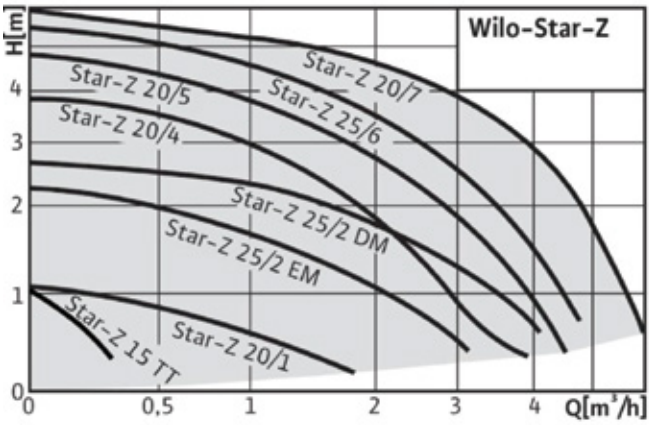
Bosch Commercial 32 Series Accessories

Secondary Pumps

Dual Star-Z 20/7 Deluxe Pump System

Part No: 8736200002

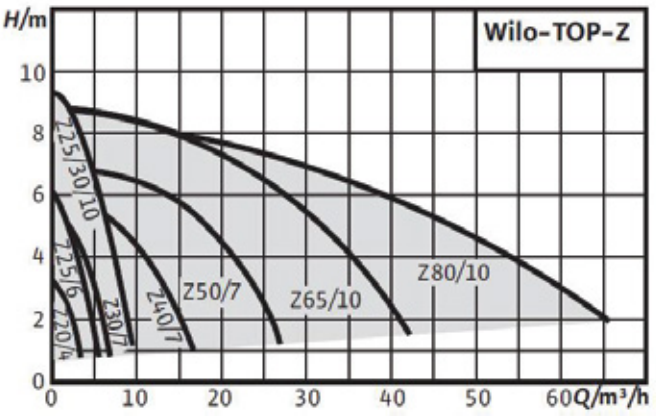
- Max head: 7m
- Connections: ¾” (20mm)
- Mains AC Voltage: 1 ~ 230V, 50Hz



Dual Top-Z 30/10 EM Deluxe Pump System

Part No: 8736200003

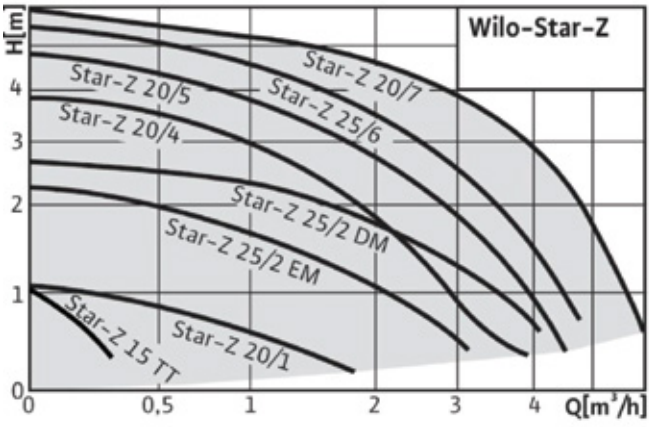
- Max head: 10m
- Connections: 1 ¼” (32mm)
- Mains AC Voltage: 1 ~ 230V, 50Hz



Dual Star-Z 20/7 EM Basic Pump Systems

Part No: 8736200004

- Max head: 7m
- Connections: ¾” (20mm)
- Mains AC Voltage: 1 ~ 230V, 50Hz



Pump Kit

- Comes standard in tank packs including two or three cascaded appliances, and a 315L stainless steel tank (refer page 52).
- Includes Lowara 2HMS3 horizontal multistage pump, thermally wrapped connections and a ball valve.

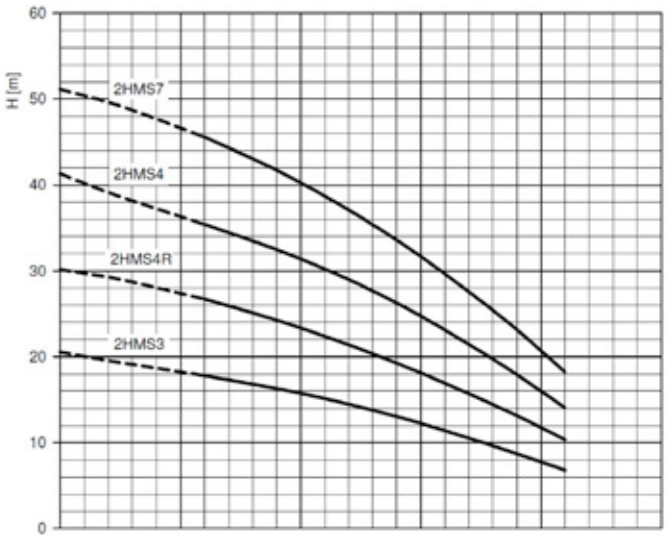
Pump Kit Technical Information

Lowara 2HMS3

Suitable for drinking water the 2HMS3 is a booster pump within the Bosch tank pack systems.

Technical Information: Lowara 2HMS3

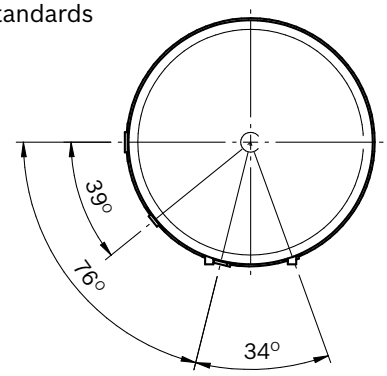
- Flow rate: 2 m3/h (33.3 L/min)
- Maximum Head: 20.5m
- Rated motor power: 30 kW
- Mains AC voltage: 1~ 220-240V 50Hz
- Fluid temperature -10°C to 110°C
- Max operating pressure: 800 kPa
- Max ambient temperature: 40°C

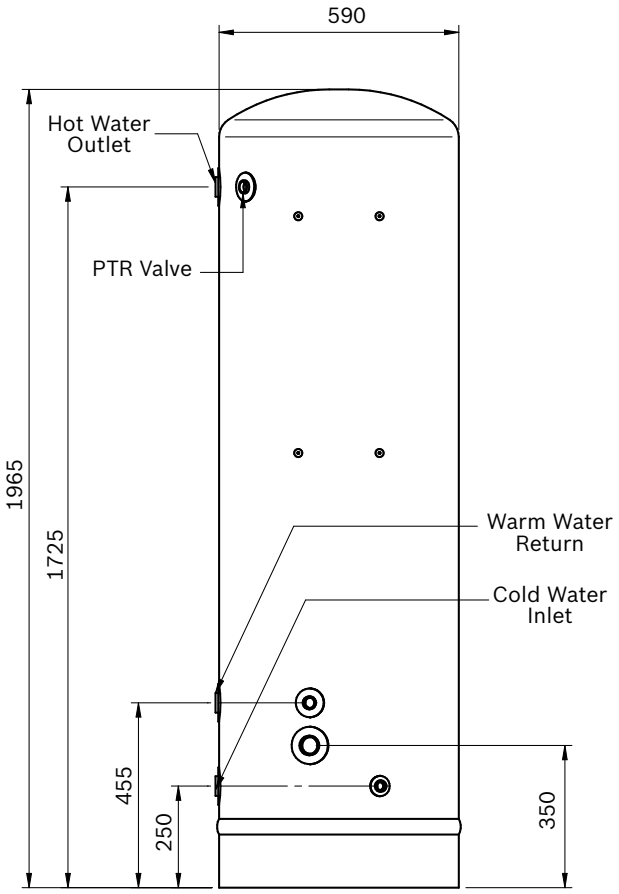


Tanks

315L Stainless Steel Tank - 315C220T

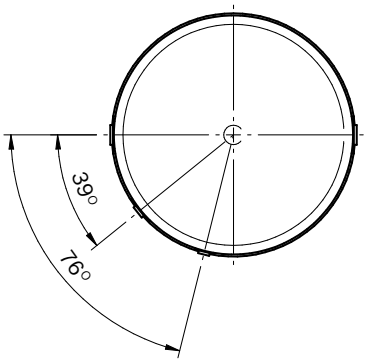
- 315L Stainless Steel Commercial Storage Tank
- 20mm flow and return
- Left hand connections 32mm
- Sensor well pocket for thermostat
- Marine grade stainless steel
- Heat loss exceeds MEPS standards

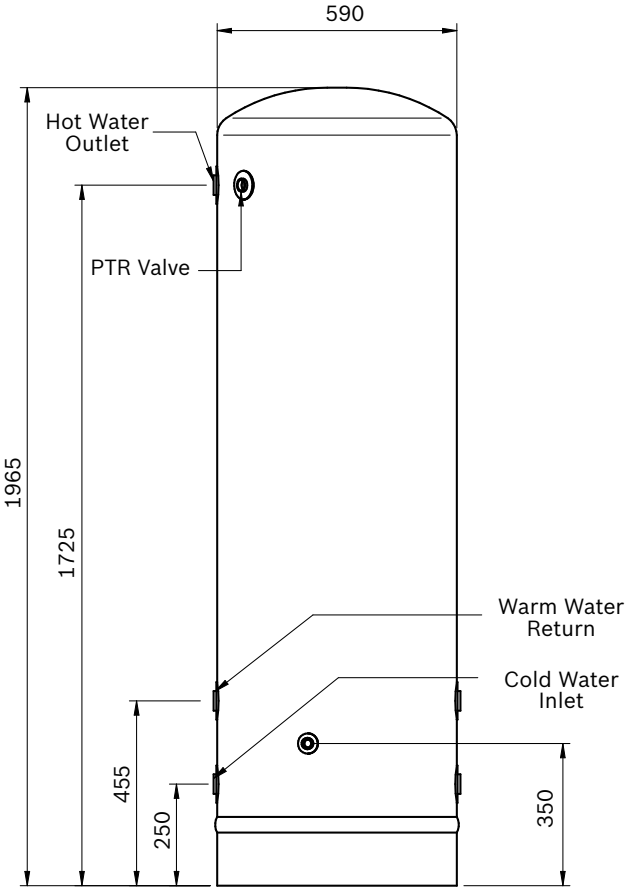




315L Stainless Steel Tank - 315C232LR

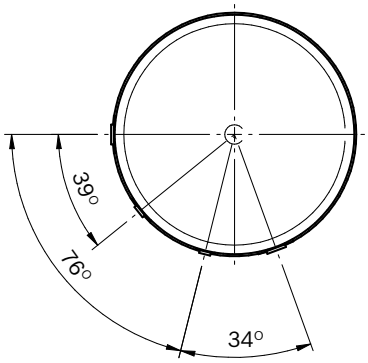
- 315L Stainless Steel Commercial Storage Tank
- Dual plumbed 32mm left and right hand connections
- Sensor well pocket for thermostat
- Marine grade stainless steel
- Heat loss exceeds MEPS standards

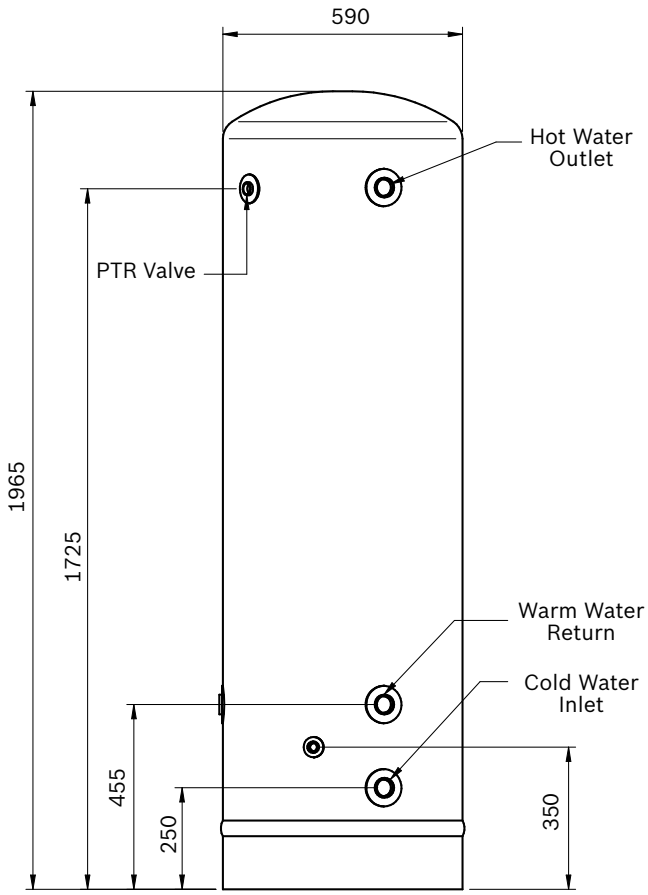




315L Stainless Steel Tank - 315C250T

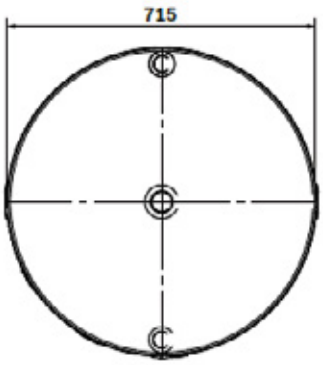
- 315L Stainless Steel Commercial Storage Tank
- 50mm connections with a return line port
- Sensor well pocket for thermostat
- Marine grade stainless steel
- Heat loss exceeds MEPS standards

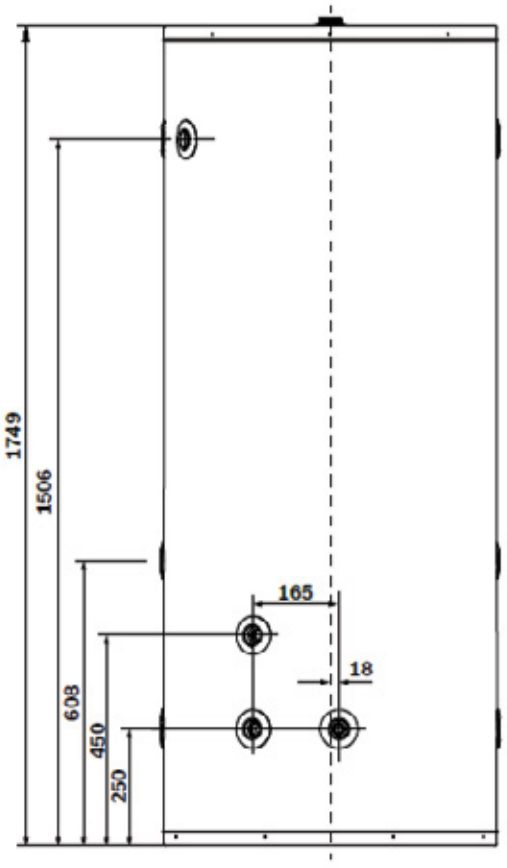




450L Vitreous Enamel Tank – 450VE32T

- 450L Vitreous Enamel Lined Tank
- Dual plumbed 32mm left and right hand connections
- Sensor well pocket for thermostat





CascadeFlow
Cascade systems

System Application

Bosch cascaded continuous flow systems are designed for applications where high flow rates are required consistently throughout the day. Cascading the systems allows higher flow rates than a single appliance can supply. Intelligent system controls enable staging and rotating which extends the lifetime of the appliances. Commonly installed in sporting clubs, restaurants, commercial kitchens, and laundries, cafes, pubs and hotels.

Available Options

- NG or LPG
- Bosch 32 high efficiency, or Bosch 32C appliances available
- 50°C locked options (Bosch 32C options only)
- Available in configurations of 2 to 6 appliances

How are they supplied?

- Fully assembled and mounted on a cascade framework
- Hot and cold lines pre-plumbed to each appliance
- All water connections are insulated
- Gas supply lines pre-plumbed to each appliance
- All water and gas lines tested to AS/NZS standards
- Supplied in modules of 2 or 3 cascaded appliances
- When 4 or more appliances are required, the appropriate combination of modules, connection kits and controllers will be supplied

Included in the pack

- Bosch 32 or 32C appliance
- Cascade framework
- Pipework and fittings
- Quick connect cord and main controller (2 appliance system), or system controller and cables (3 to 6 appliance systems)

What is required at installation?

As all pipework to the appliances has been sealed and tested, only the following is required by the installing plumber

- Connection of the two modules (if 4 to 6 appliance options are required)
- Installation of the floor mount kit (floor standing applications only)
- Connection to the main hot, cold and gas lines
- Connection to electricity supply via the two modules
- Connection and programming of the controller
- Fit vent cap (outdoor applications) or flue (indoor applications) as required

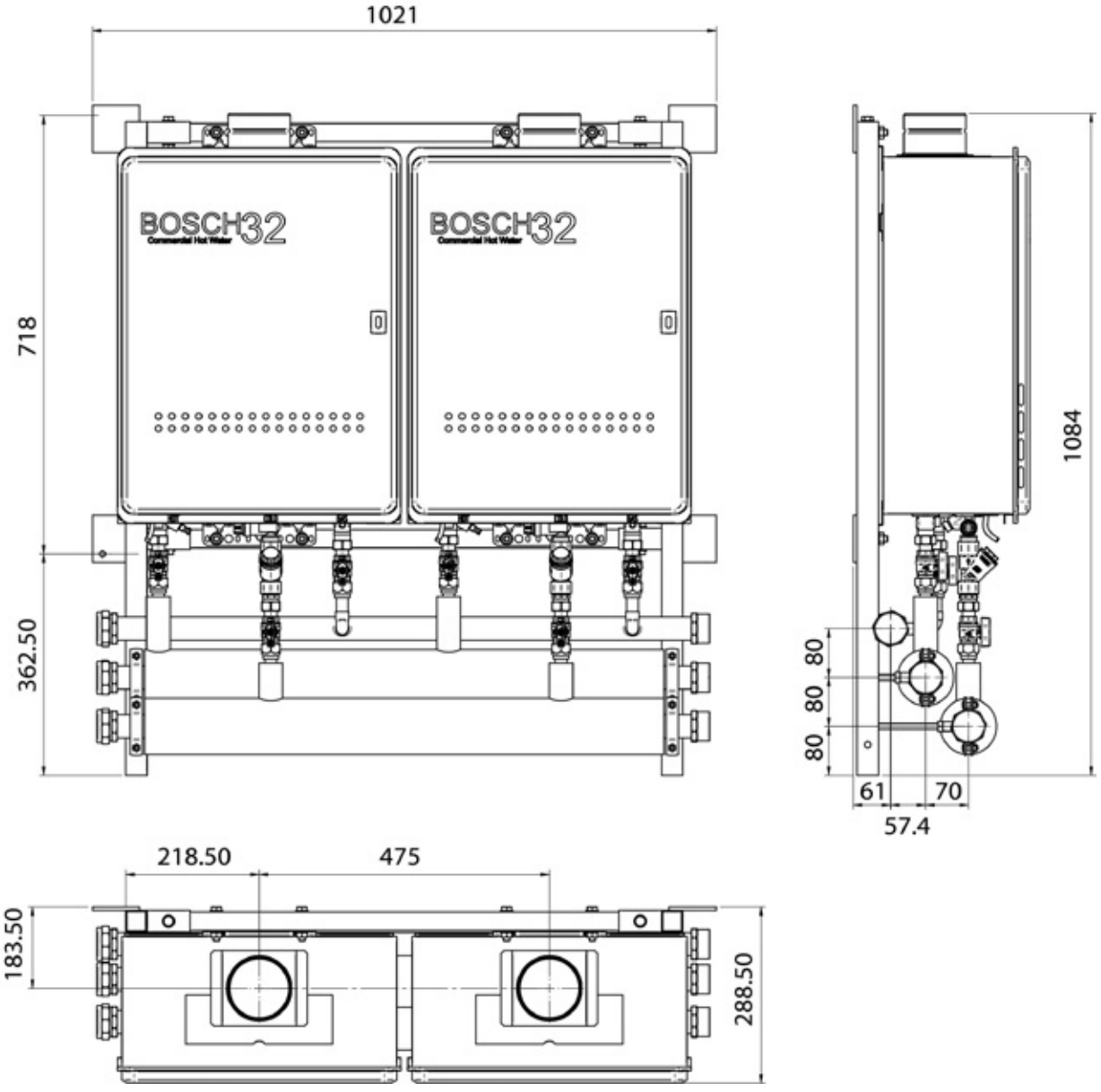
Product Features

- Flexible modular design allowing easy pre-plumbed installation
- electronic staging and rotation system for extended life of the system
- No gas consumption when hot water is not in use
- Consistent outlet temperature, even when the flow rate varies
- Flexible installation as both indoor and outdoor installations are possible
- Can be used in standard or recirculation installations (additional pump and control system required)
- Controller available for easy diagnostics
- Shipped in a heavy duty wooden crate designed for protection during shipping, and safe onsite craning

CascadeFlow Systems
Wall Mounted

Bosch CascadeFlow – CF232W & CF232WC

Part Numbers: CF232WNG, CF232WLP, CF232WCNG, CF232WC5NG, CF232WCLP, CF232WC5LP

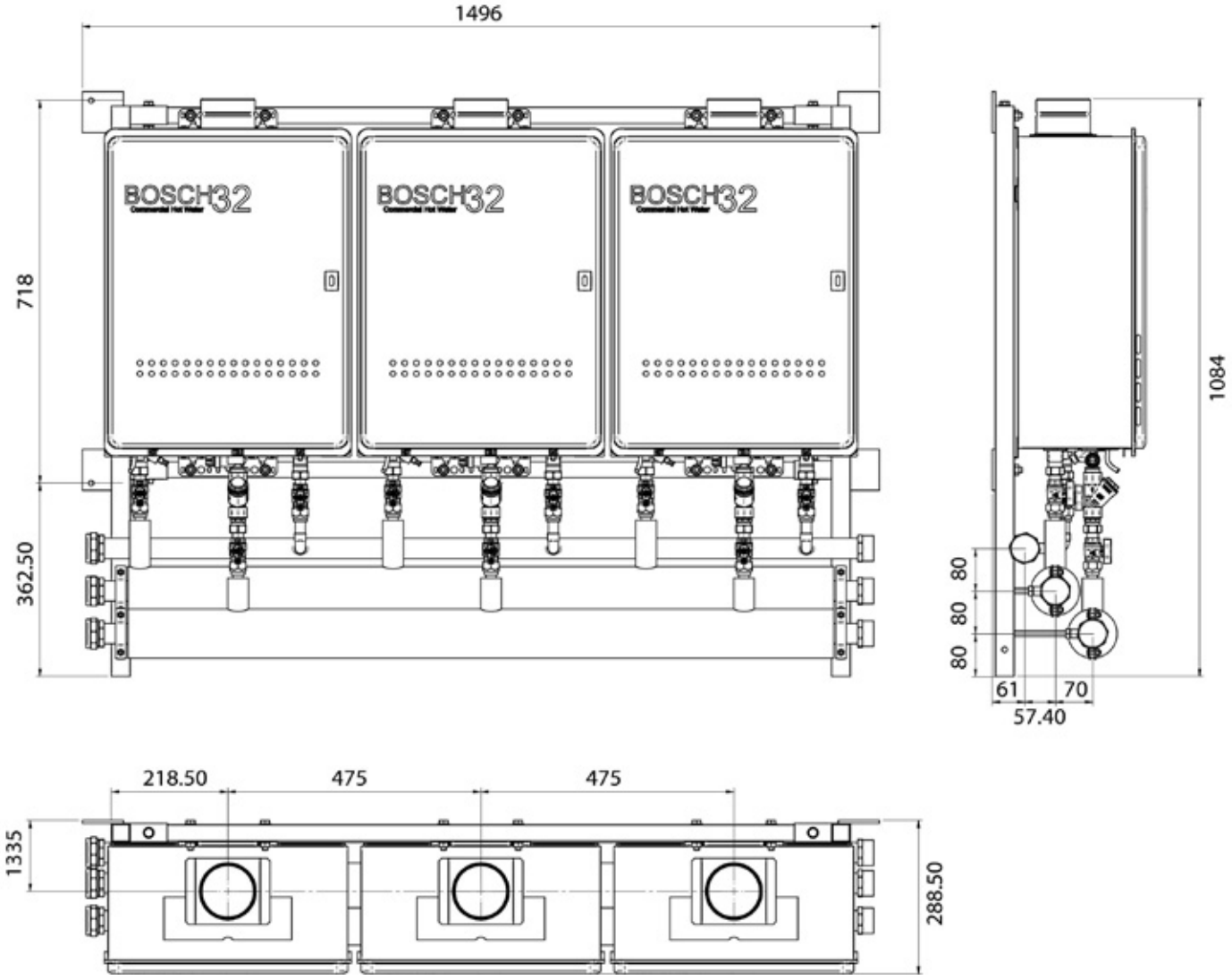


Specification	Value
Application	Indoor/Outdoor
Thermal Output	115kW(32C) 111kW(32)
Min Gas Supply Pressure (kPa)	1.13(NG) 2.75(LPG)
Gas Input Mj/Hr	434(32C) 500(32)
Litres per minute (25°C Rise)	64
Litres per minute (50°C Rise)	32
Hot, Cold and Gas Conn.	40mm
Water Pressure (min)	200 kPa
Water Pressure (max)	900 kPa

CascadeFlow Systems
Wall Mounted

Bosch CascadeFlow – CF332W & CF332WC

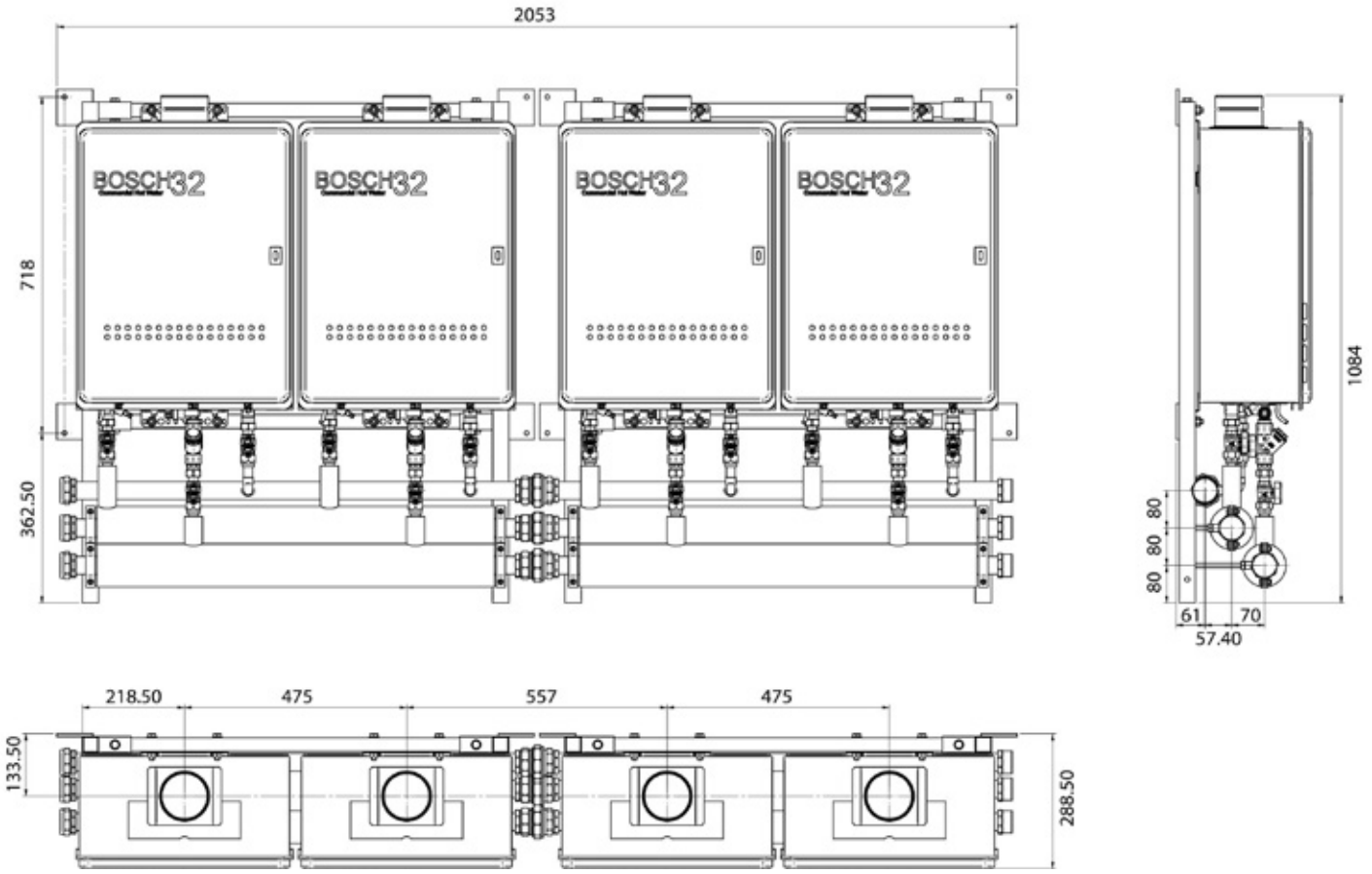
Part Numbers: CF332WNG, CF332WLP, CF332WCNG, CF332WC5NG CF332WCLP, CF332WC5LP



Specification	Value
Application	Indoor/Outdoor
Thermal Output	172.5kW(32C) 165kW(32)
Min Gas Supply Pressure (kPa)	1.13(NG) 2.75(LPG)
Gas Input Mj/Hr	651(32C) 750(32)
Litres per minute (25°C Rise)	96
Litres per minute (50°C Rise)	48
Hot, Cold and Gas Conn.	40mm
Water Pressure (min)	200 kPa
Water Pressure (max)	900 kPa

Bosch CascadeFlow – CF432W & CF432WC

Part Numbers: CF432WNG, CF432WLP, CF432WCNG, CF432WC5NG, CF432WCLP, CF432WC5LP

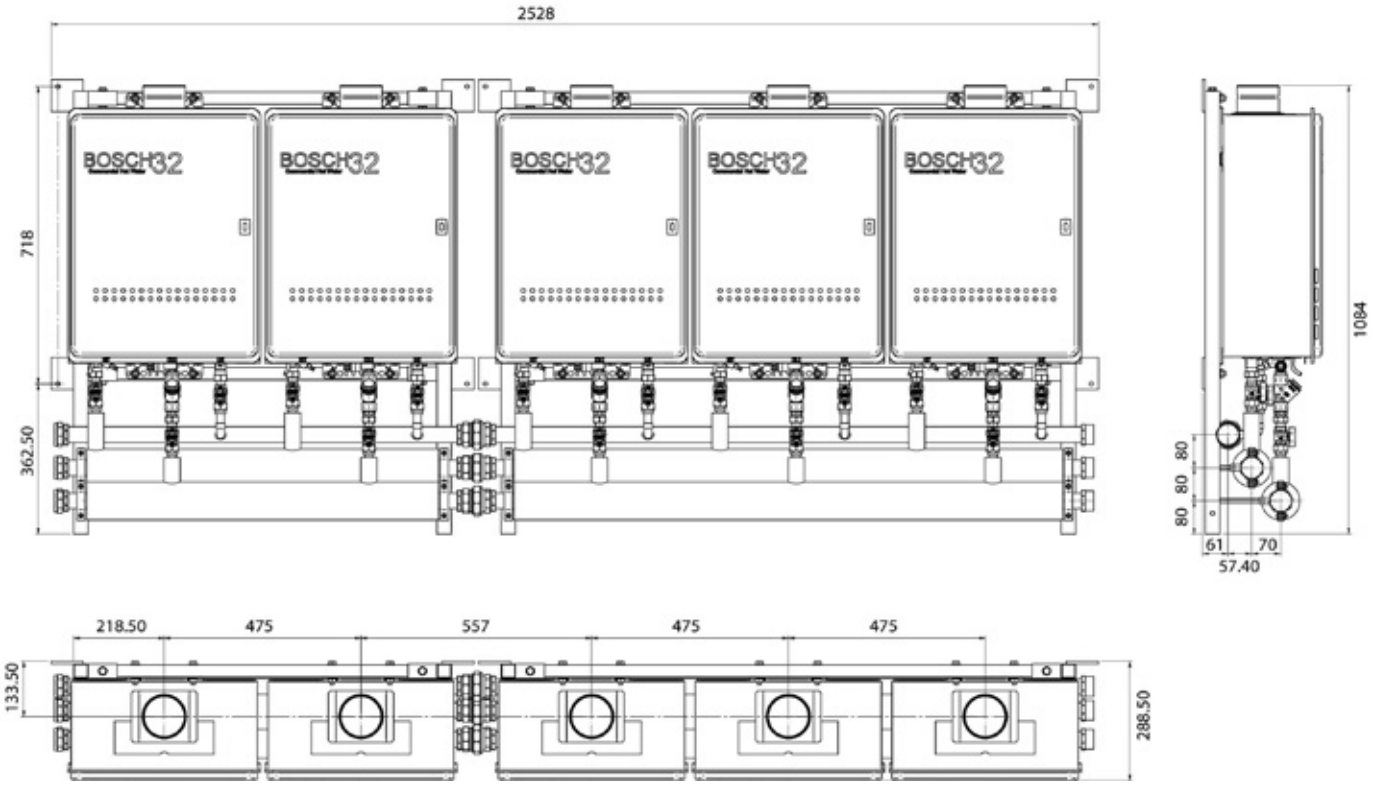


Specification	Value
Application	Indoor/Outdoor
Thermal Output	230kW(32C) 220kW(32)
Min Gas Supply Pressure (kPa)	1.13(NG) 2.75(LPG)
Gas Input Mj/Hr	868 32C) 1000(32)
Litres per minute (25°C Rise)	128
Litres per minute (50°C Rise)	64
Hot, Cold and Gas Conn.	40mm
Water Pressure (min)	200 kPa
Water Pressure (max)	900 kPa

CascadeFlow Systems
Wall Mounted

Bosch CascadeFlow – CF532W & CF532WC

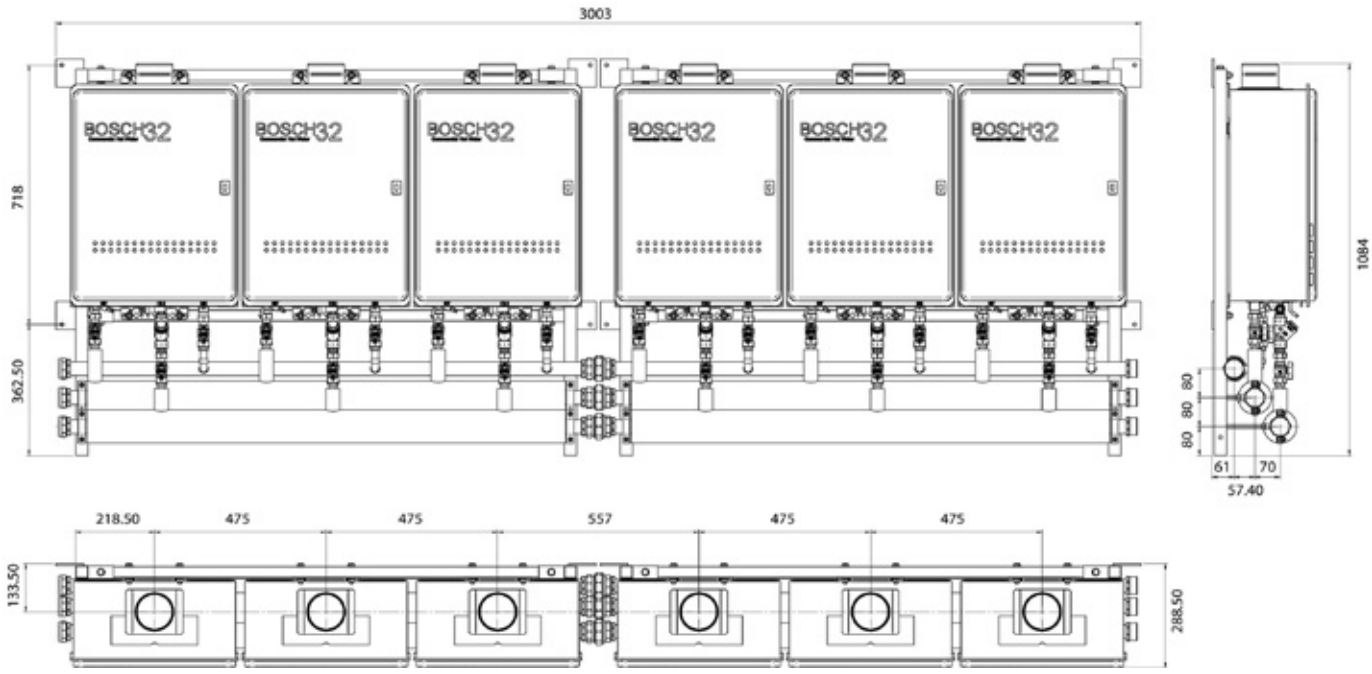
Part Numbers: CF532WNG, CF532WLP, CF532WCNG, CF532WC5NG, CF532WCLP, CF532WC5LP



Specification	Value
Application	Indoor/Outdoor
Thermal Output	287.5kW(32C) 275kW(32)
Min Gas Supply Pressure (kPa)	1.13(NG) 2.75(LPG)
Gas Input Mj/Hr	1085(32C) 1250(32)
Litres per minute (25°C Rise)	160
Litres per minute (50°C Rise)	80
Hot, Cold and Gas Conn.	40mm
Water Pressure (min)	200 kPa
Water Pressure (max)	900 kPa

Bosch CascadeFlow – CF632W & CF632WC

Part Numbers: CF632WNG, CF632WLP, CF632WCNG, CF632WC5NG, CF632WCLP, CF632WC5LP

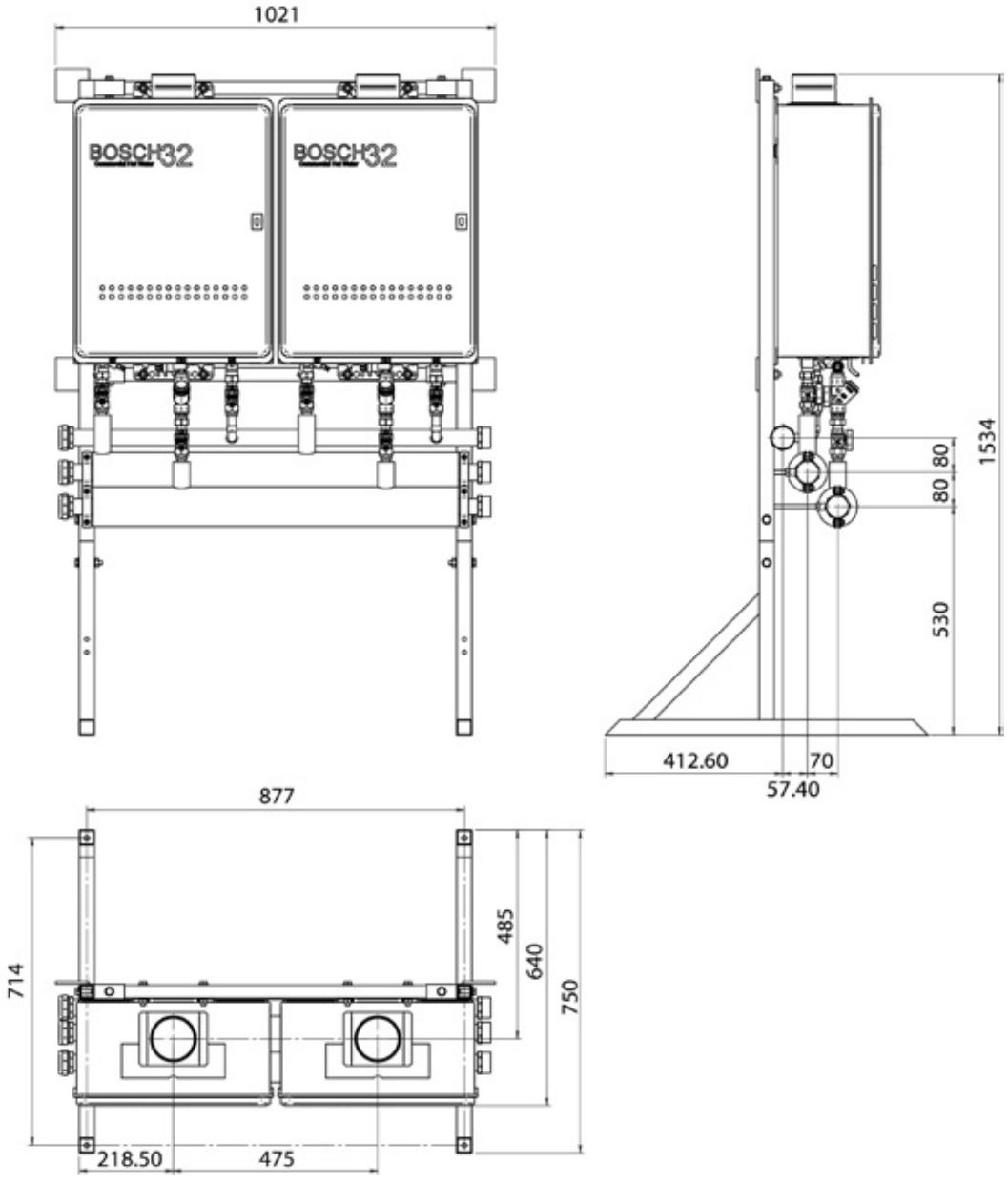


Specification	Value
Application	Indoor/Outdoor
Thermal Output	287.5kW(32C) 275kW(32)
Min Gas Supply Pressure (kPa)	1.13(NG) 2.75(LPG)
Gas Input Mj/Hr	1302(32C) 1500(32)
Litres per minute (25°C Rise)	192
Litres per minute (50°C Rise)	96
Hot, Cold and Gas Conn.	40mm
Water Pressure (min)	200 kPa
Water Pressure (max)	900 kPa

CascadeFlow Systems
Floor Standing

Bosch CascadeFlow – CF232F & CF232FC

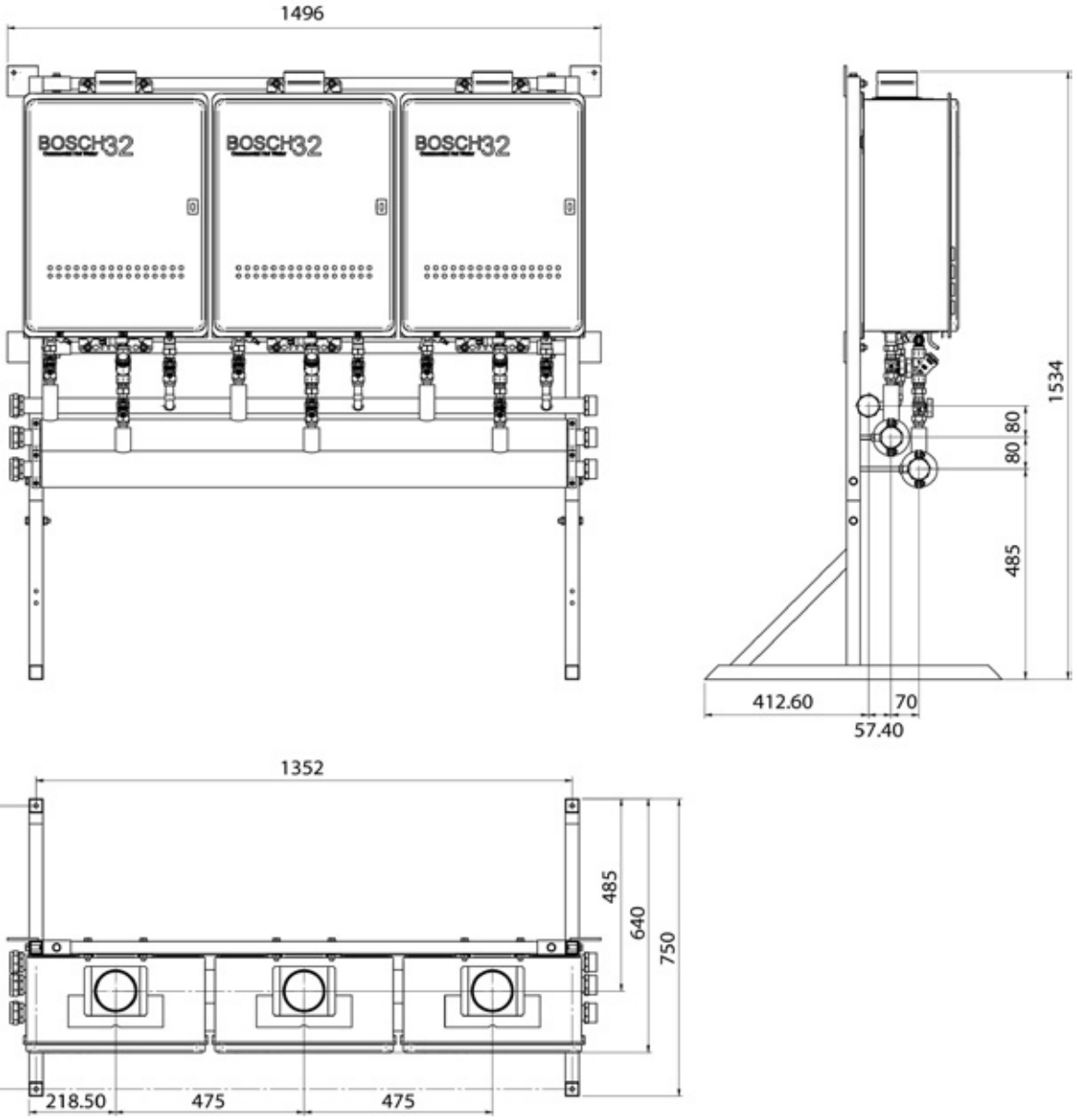
Part Numbers: CF232FNG, CF232FLP, CF232FCNG, CF232FC5NG, CF232FCLP, CF232FC5LP



Specification	Value
Application	Indoor/Outdoor
Thermal Output	115kW(32C) 111kW(32)
Min Gas Supply Pressure (kPa)	1.13(NG) 2.75(LPG)
Gas Input Mj/Hr	434(32C) 500(32)
Litres per minute (25°C Rise)	64
Litres per minute (50°C Rise)	32
Hot, Cold and Gas Conn.	40mm
Water Pressure (min)	200 kPa
Water Pressure (max)	900 kPa

Bosch CascadeFlow – CF332F & CF332FC

Part Numbers: CF332FNG, CF332FLP, CF332FCNG, CF332FC5NG, CF332FCLP, CF332FC5LP

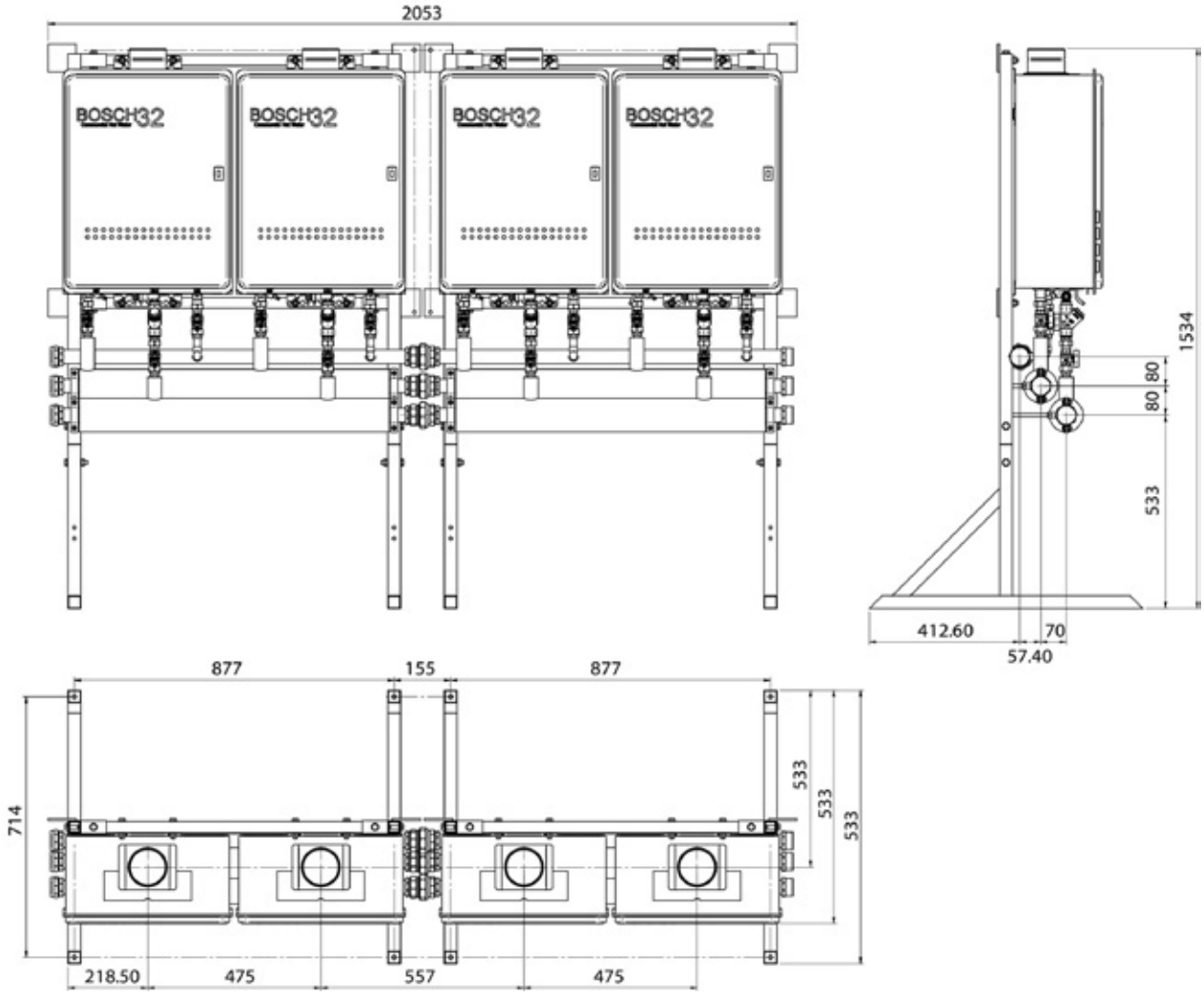


Specification	Value
Application	Indoor/Outdoor
Thermal Output	172.5kW(32C) 165kW(32)
Min Gas Supply Pressure (kPa)	1.13(NG) 2.75(LPG)
Gas Input Mj/Hr	651(32C) 750(32)
Litres per minute (25°C Rise)	96
Litres per minute (50°C Rise)	48
Hot, Cold and Gas Conn.	40mm
Water Pressure (min)	200 kPa
Water Pressure (max)	900 kPa

CascadeFlow Systems
Floor Standing

Bosch CascadeFlow – CF432F & CF432FC

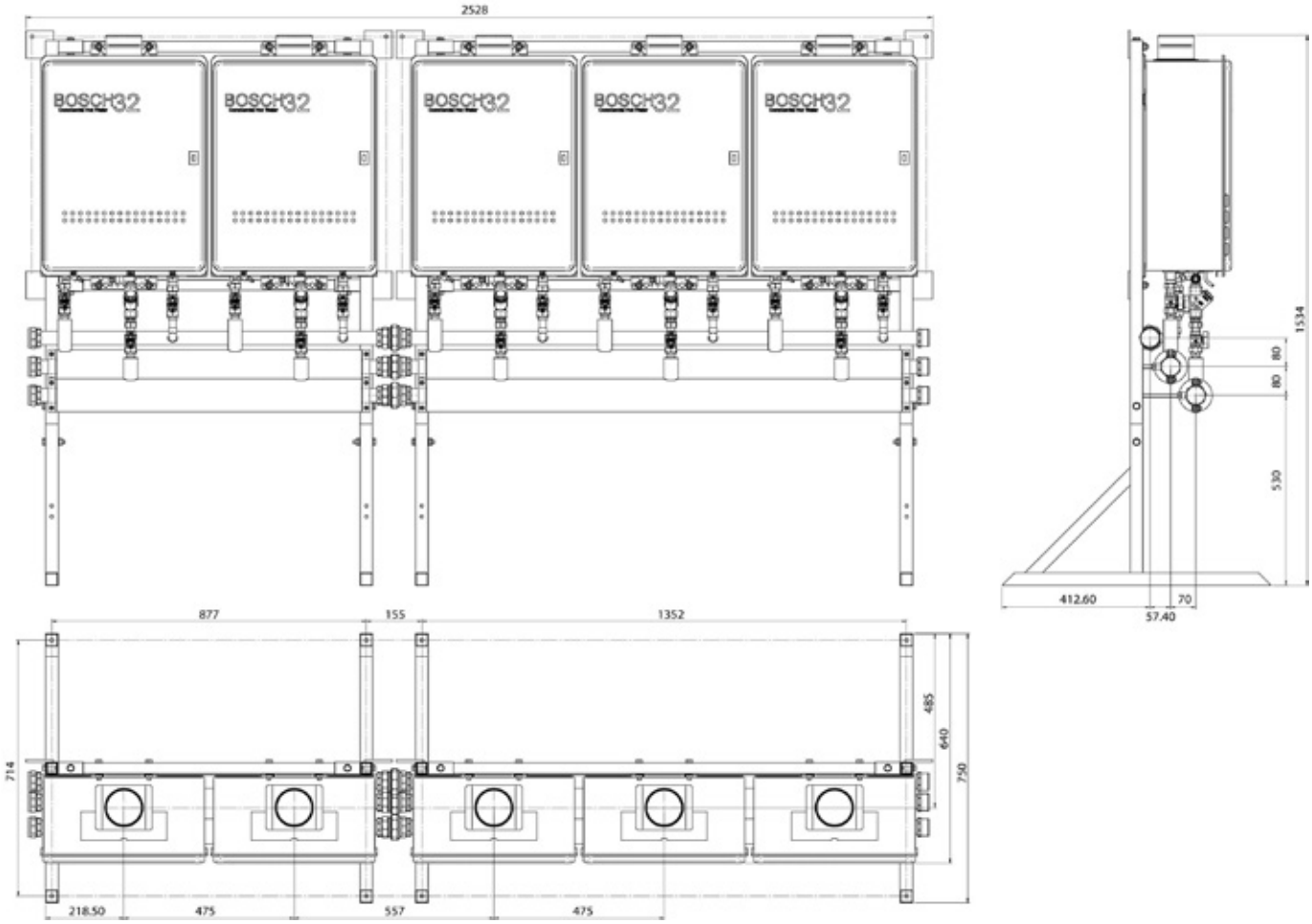
Part Numbers: CF432FNG, CF432FLP, CF432FCNG, CF432FC5NG, CF432FCLP, CF432CF5LP



Specification	Value
Application	Indoor/Outdoor
Thermal Output	230kW(32C) 220kW(32)
Min Gas Supply Pressure (kPa)	1.13(NG) 2.75(LPG)
Gas Input Mj/Hr	868 (32C) 1000(32)
Litres per minute (25°C Rise)	128
Litres per minute (50°C Rise)	64
Hot, Cold and Gas Conn.	40mm
Water Pressure (min)	200 kPa
Water Pressure (max)	900 kPa

Bosch CascadeFlow – CF532F & CF532FC

Part Numbers: CF532FNG, CF532FLP, CF532FCNG, CF532FC5NG, CF532FCLP, CF532FC5LP

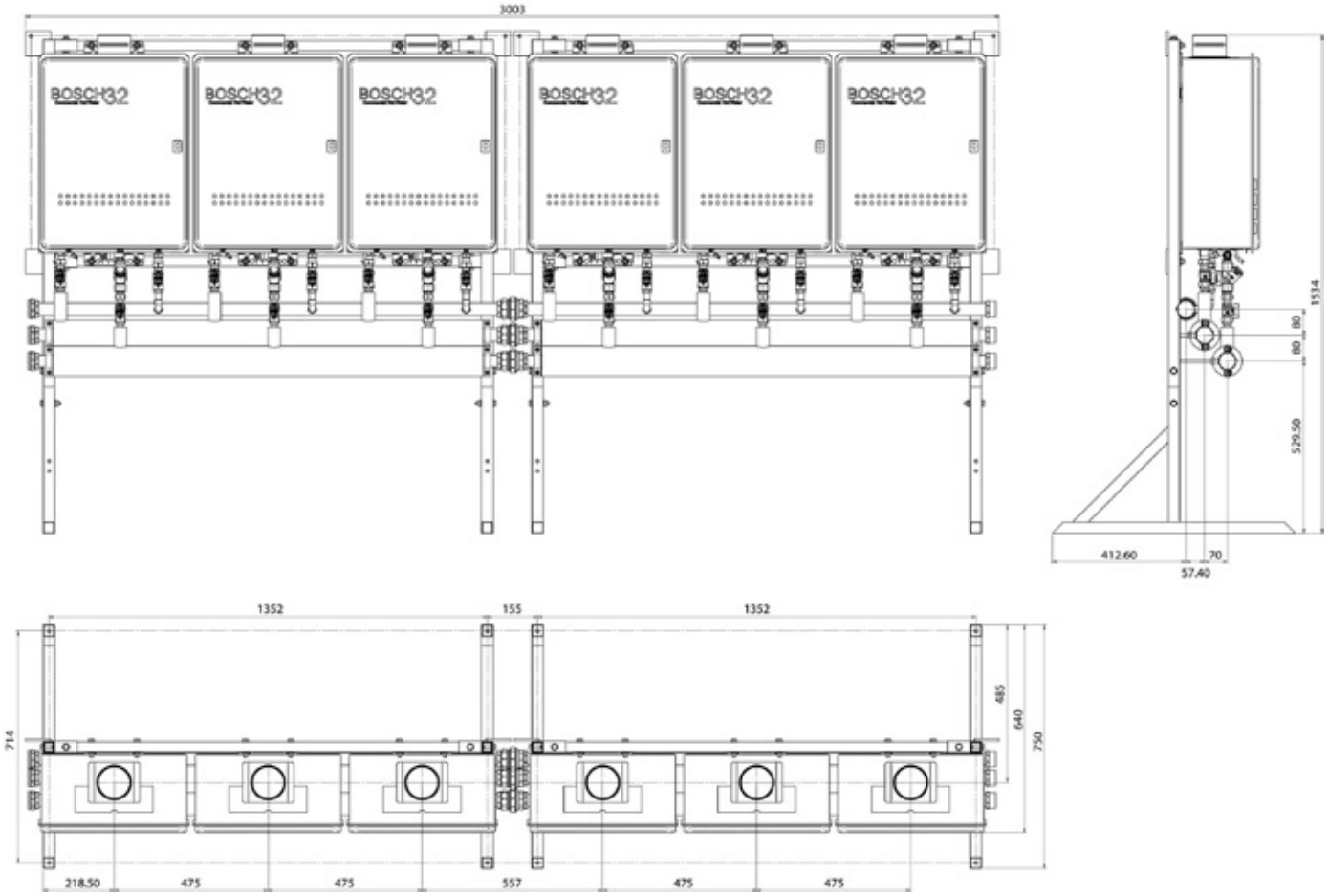


Specification	Value
Application	Indoor/Outdoor
Thermal Output	287.5kW(32C) 275kW(32)
Min Gas Supply Pressure (kPa)	1.13(NG) 2.75(LPG)
Gas Input Mj/Hr	651(32C) 750(32)
Litres per minute (25°C Rise)	96
Litres per minute (50°C Rise)	48
Hot, Cold and Gas Conn.	40mm
Water Pressure (min)	200 kPa
Water Pressure (max)	900 kPa

CascadeFlow Systems
Floor Standing

Bosch CascadeFlow – CF632F & CF632FC

Part Numbers: CF632FNG, CF632FLP, CF632FCNG, CF632FC5NG, CF632FCLP, CF632FC5LP



Specification	Value
Application	Indoor/Outdoor
Thermal Output	345kW(32C) 330kW(32)
Min Gas Supply Pressure (kPa)	1.13(NG) 2.75(LPG)
Gas Input Mj/Hr	1302(32C) 1500(32)
Litres per minute (25°C Rise)	192
Litres per minute (50°C Rise)	96
Hot, Cold and Gas Conn.	40mm
Water Pressure (min)	200 kPa
Water Pressure (max)	900 kPa

Sizing Guide
CascadeFlow Systems

Part Number	No of water heaters	Gas rate (Mj/H)	L/min (20°C rise)	L/min (25°C rise)	L/min (50°C rise)
CF232WNG CF232WLP CF232FNG CF232FLP	2 x 250	500	74	64	32
CF232WCNG CF232WCLP CF232WC5NG CF232WC5LP CF232FCNG CF232FCLP CF232FC5NG CF232FC5LP	2 x 217	434	74	64	32
CF332WNG CF332WLP CF332FNG CF332FLP	3 x 250	750	111	96	48
CF332WCNG CF332WCLP CF332WC5NG CF332WC5LP CF332FCNG CF332FCLP CF332FC5NG CF332FC5LP	3 x 217	651	111	96	48
CF432WNG CF432WLP CF432FNG CF432FLP	4 x 250	1000	148	128	64
CF432WCNG CF432WCLP CF432WC5NG CF432WC5LP CF432FCNG CF432FCLP CF432FC5NG CF432FC5LP	4 x 217	868	148	128	64
CF532WNG CF532WLP CF532FNG CF532FLP	5 x 250	1250	185	160	80
CF532WCNG CF532WCLP CF532WC5NG CF532WC5LP CF532FCNG CF532FCLP CF532FC5NG CF532FC5LP	5 x 217	1085	185	160	80
CF632WNG CF632WLP CF632FNG CF632FLP	6 x 250	1500	222	192	96
CF632WCNG CF632WCLP CF632WC5NG CF632WC5LP CF632FCNG CF632FCLP CF632FC5NG CF632FC5LP	6 x 217	1302	222	192	96

CascadeTherm
Single appliance pack

System Applications

Ideal for a small commercial applications where consistent hot water volumes are required at certain times of day, or where peaks in hot water demand are frequent.

Available Options

- NG or LPG
- Only available with Bosch 32
- 315L stainless steel tank

How are they supplied?

- Supplied pre-assembled
- Shipped in cardboard packaging and strapped to a pallet

Included in pack

- 315L stainless steel tank
- Bosch continuous flow hot water appliance. Bosch 32
- Circulating pump pump
- Digital thermostat
- Shroud

Installation requirements

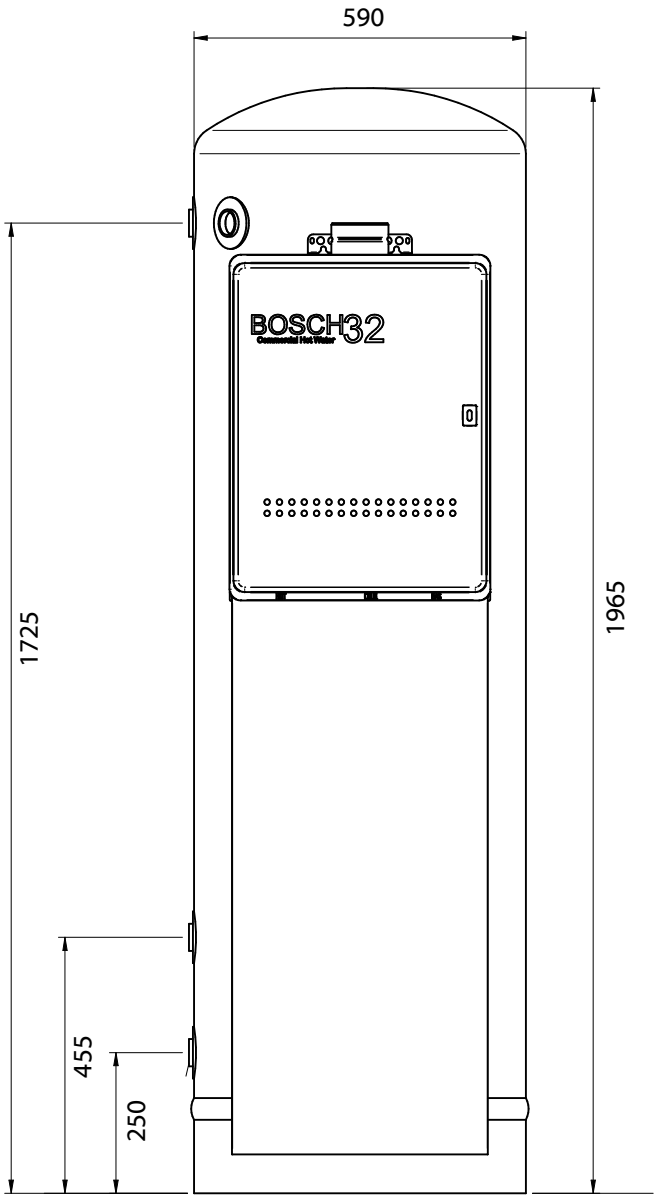
- Connect the hot and cold water lines, and the gas line
- Connection to electricity supply via GPOs
- Connection and programming of the controller
- Fit vent cap (outdoor applications) or flue (indoor applications) as required

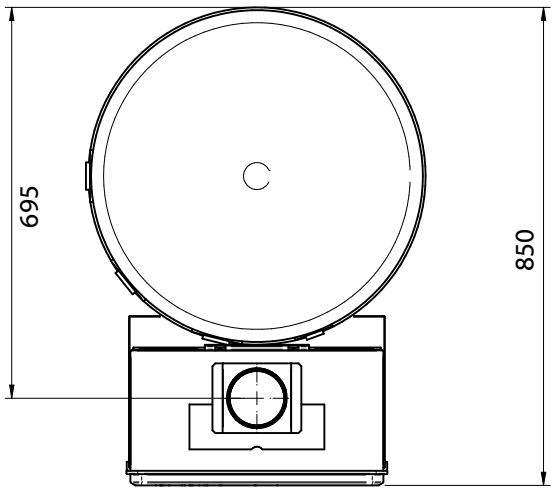
Product Features

- Up to 1275 litres at 50°C rise in the first hour
- Ease of maintenance
- Simple installation as product is pre-assembled
- Flexible installation as both indoor and outdoor installations are possible
- Packaged in a wooden crate
- Accurate temperature control through use of digital thermostat

Bosch CascadeTherm – C315T32WH

Part Numbers: C315T32WHNG, C315T32WHLP





Specification	Value
Application	Indoor/Outdoor
Thermal Output	55kW(32)
Min Gas Supply Pressure (kPa)	1.13(NG) 2.75(LPG)
Gas Input Mj/Hr	250(32)
Tank material	316L Stainless Steel
Tank Size	315L
First Hour Delivery (50°C Rise)	1275
Recovery Hour Delivery (50°C Rise)	960
Hot & Cold Conn.	32mm
Maximum Inlet Pressure (kPa)	500

CascadeTherm
Cascade & Tank Systems

System Applications

Used in medium to large commercial applications where hot water requirements peak at certain times of the day. Commonly used in large apartment buildings, hotels, and hospitals.

Available Options

- NG and LPG
- Only available with Bosch 32
- 315L stainless steel tank
- 2 and 3 appliance options available

How are they supplied?

Cascade modules

- Fully assembled and mounted on the cascade framework.
- Hot, cold and gas lines pre-plumbed to each appliance. All water connections are insulated
- Supplied in modules of 2 or 3 cascaded appliances
- Supplied with all required controllers, and connection kits
- Shipped in a heavy duty wooden crate designed for protection during shipping, and safe onsite craning

Tanks

- Packaged in a wooden crate

Pump kit

- Pump and connections shipped in a separate carton

What is required at installation?

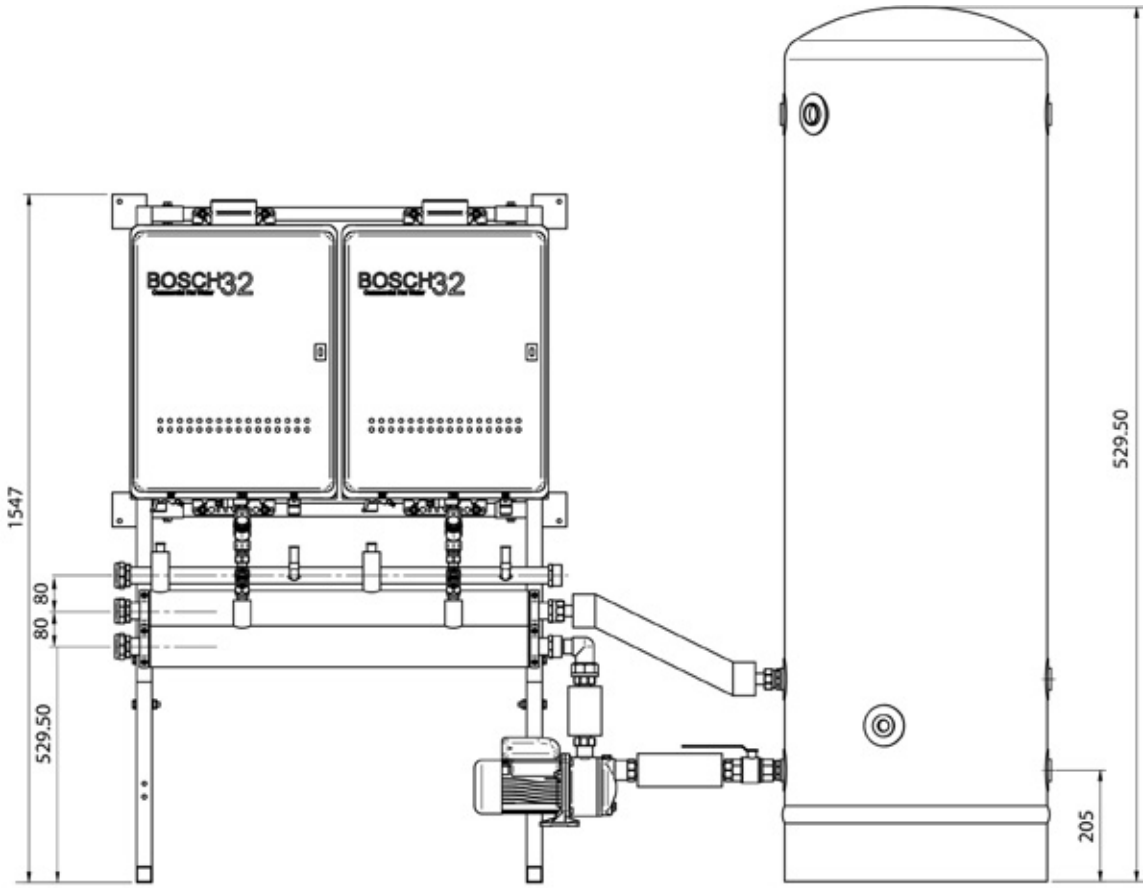
- Connection of cascade module to tank via pump connection kit
- Connection of main hot and cold water lines
- Connection of main gas line
- Connection to electricity supply via GPO's
- Installation of the floor mount kit (floor standing applications only)
- Connection and programming of the controller
- Fit vent cap (outdoor applications) or flue (indoor applications) as required

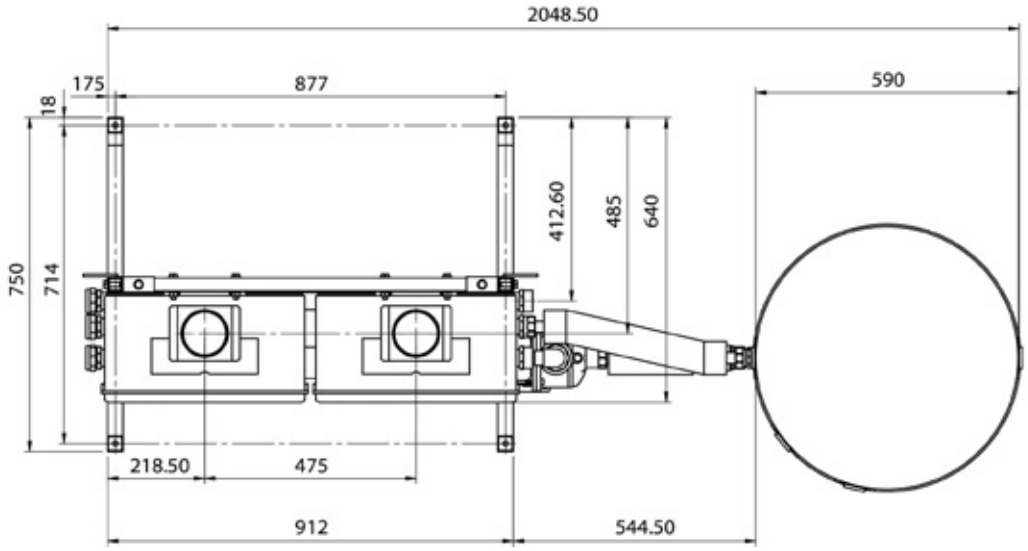
Product Features

- Up to 3,195L at 50°C rise in the first hour (3 appliance module)
- Flexible modular design allowing easy pre-plumbed installation
- Flexible installation as both indoor and outdoor installations are possible
- Space saving, centralized system
- Can be used in standard or recirculation installations (additional pump required)
- Accurate temperature control through use of digital thermostat
- System controller for easy diagnostics

Bosch CascadeTherm – CT232-1315SS & CT232C-1315SS.

Part Numbers: CT232-1315SSNG, CT232-1315SSLP, CT232C-1315SSNG, CT232C-1315SSLP





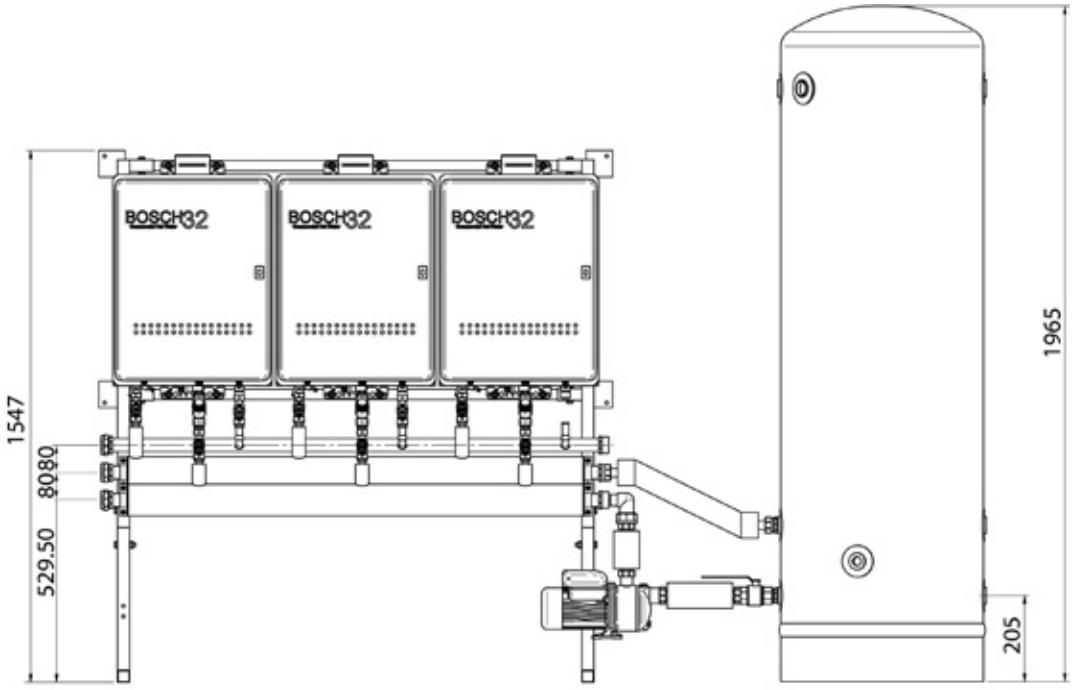
Specification	Value
Application	Indoor/Outdoor
Thermal Output	115kW(32C) 110kW(32)
Min Gas Supply Pressure (kPa)	1.13(NG) 2.75(LPG)
Gas Input Mj/Hr	434(32C) 500(32)
Tank material	316L Stainless Steel
Tank Size	315L

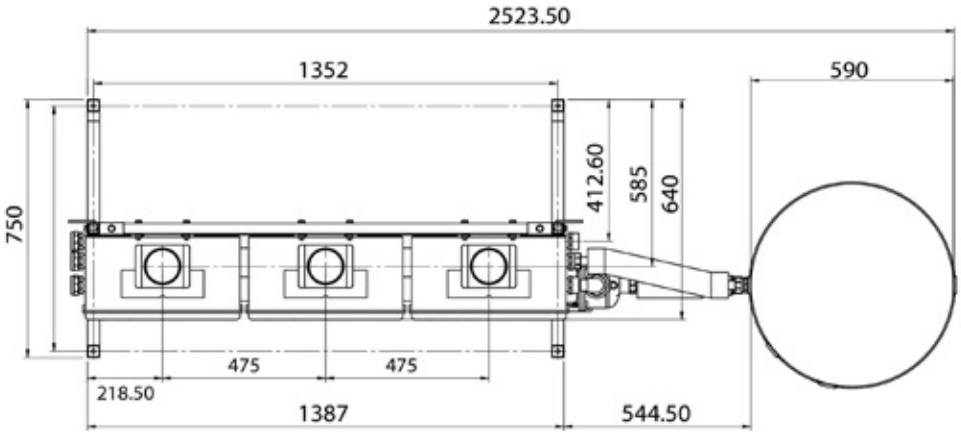
Specification	Value
First Hour Delivery (50°C Rise)	2235
Recovery Hour Delivery (50°C Rise)	1920
Hot & Cold Conn.	32mm
Water Pressure (min)	200 kPa
Water Pressure (max)	500 kPa

CascadeTherm
Single appliance pack

Bosch CascadeTherm – CT332-1315SS & CT332C-1315SS

Part Numbers: CT332-1315SSNG, CT332-1315SSLP, CT332C-1315SSNG, CT332C-1315SSLP





Specification	Value
Application	Indoor/Outdoor
Thermal Output	172.5kW(32C) 165kW(32)
Min Gas Supply Pressure (kPa)	1.13(NG) 2.75(LPG)
Gas Input Mj/Hr	651(32C) 750(32)
Tank material	316L Stainless Steel
Tank Size	315L
First Hour Delivery (50°C Rise)	3195
Recovery Hour Delivery (50°C Rise)	2880
Hot & Cold Conn.	32mm
Water Pressure (min)	200 kPa
Water Pressure (max)	500 kPa

Sizing Guide
CascadeTherm Tank Systems

Part Number	C315T32WH	CT232-1315SS	CT232C-1315SS	CT332-1315SS	CT332C-1315SS
No of water heaters	1 x 250 (Mj/H)	2 x 250 (Mj/H)	2 x 217 (Mj/H)	3 x 250 (Mj/H)	3 x 217 (Mj/H)
First Hour Litres (50°C rise)	1275	2235	2235	3195	3195
Recovery Litres (50°C rise)	960	1920	1920	2880	2880
Tank Size (L)	1 x 315	1 x 315	1 x 315	1 x 315	1 x 315
Gas rate (Mj/H)	250	500	434	750	651
Apartments mix of 1 & 2 bedroom	20	35	35	50	50
Apartments mix of 2 & 3 bedroom	14	25	25	35	35
Hotel Beds 1-3 star rated	58	101	101	145	145
Hotel Beds 4-5 star rated	36	63	63	91	91
Amenities No of (AAA) 3 star showers	8	11	11	19	19

Bosch 32 Series and Accessories

Bosch 32C
Part No: BC3200RANG
Part No: BC3200RALP
Part No: BC3200RA5NG
Part No: BC3200RA5LP

Bosch 32
Part No: KM3211WHNG
Part No: KM3211WHLP

Bosch 32Q
Part No: KM3211WHQNG
Part No: KM3211WHQLP

Main Remote Controller
Part No: RCM3211

Sub Controller
Part No: RCS3211

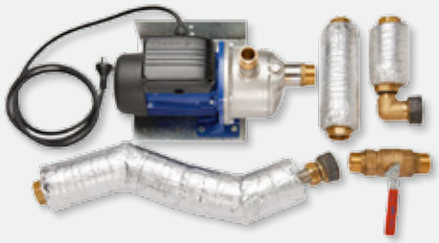
Quick Connect Cable
Part No: 0700073

Systems Controller
Part No: KMSC201

Senztek Digital Controller
Part No: ALPHASTATPLUSWR

Floor Standing Kit
Part No: BFMK32

Connection Kit
Part No: BCK32



Commercial Pump Kit
Part No: BCPK32

Dual Star-Z 20/7 Deluxe Pump
Part No: 8736200002

Dual Top-Z 30/10 EM Deluxe
Part No: 8736200003

Dual Star-Z 20/7 EM Basic
Part No: 8736200004

Storage Tank Stainless Steel 315L
Part No: 315C220T

Storage Tank Stainless Steel 315L
Part No: 315C232LR

Storage Tank Stainless Steel 315L
Part No: 315C250T

Storage Tank Vitreous Enamel 400L
Part No: 450VE32T

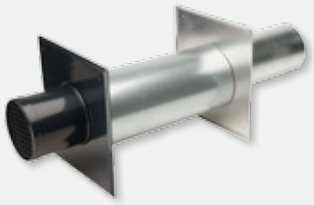
32C PP Extension Pipe 100x600mm
Part No: MG85176

32C PP Extension Pipe 100x1000mm Part No: MG85177

32C PP Flue Elbow 90°
Part No: MG85181

32C PP Flue Elbow 45°
Part No: MG85182

32C Flue Wall Bracket
Part No: MG84631



32C PP Horizontal Wall Terminal
Part No: MG87930

32C PP Vertical Roof Terminal
Part No: MG84862

32C Flue Sealing Ring
Part No: MG27356

Vent Cap for Bosch 32 & 32Q
Part No: KMVC-100

Vent Cap for Bosch 32C
Part No: BCVC-100C

Standard Vertical Flue Kit
Part No:FKV32LTR

Standard Horizontal Flue Kit
Part No: FKH32LTR

Tech & Spec Warranties

	Parts	Labour	Heat Exchanger	Tanks
Commercial Appliances	2 Years	2 Years	5 Years	–
Tanks	1 Year	1 Year	–	5 Years
Flue systems	1 Year	1 Year	–	–
Pumps	1 Year	1 Year	–	–
Controllers	1 Year	1 Year	–	–
Cascade components and Pipework	1 Year	1 Year	–	–

Warrany Statement

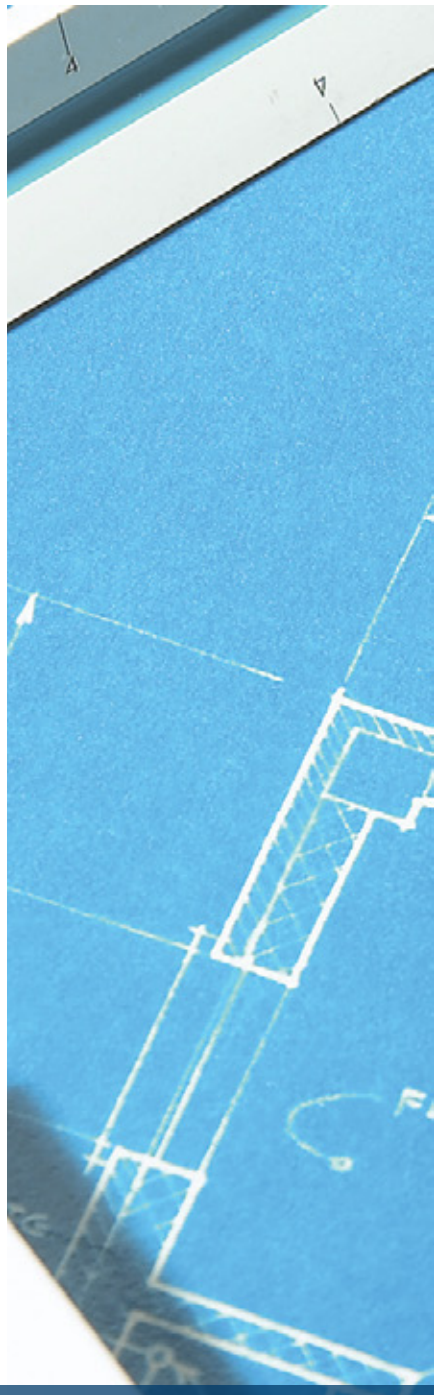
A full copy of the Bosch Warranty Statement is available on our websites:
Australia www.bosch-climate.com.au
New Zealand www.bosch-climate.co.nz

Alternatively contact our Customer Contact Centre on 1300 30 70 37 in Australia or 0800 54 33 52 in New Zealand.

Servicing

To ensure your appliance's quality and performance is optimised, Bosch recommends servicing commercial systems no less than once every 2 years. Having your product inspected and cleaned periodically by an authorised Bosch service technician not only ensures peak operation but also extends the life of the appliance.

For contact details of your nearest service agent please phone our Customer Contact Centre on 1300 30 70 37 in Australia or 0800 54 33 52 in New Zealand.



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